



Digitized by the Internet Archive
in 2014

<https://archive.org/details/b19974760M1726>



A Weekly Journal of the Chemical and Drug Trades
and of
British Pharmacists throughout the Empire,
ESTABLISHED 1859.

The CHEMIST AND DRUGGIST is the leading journal addressing the chemical and drug trades of the British Empire. It is adopted as an official journal by nineteen Chemists' Societies in Australia, Ireland, New Zealand, South Africa and the West Indies, and its paid-in-advance circulation in Great Britain and all Countries having business relations with the British Empire is intrinsically and numerically unique.

Subscription Rates.

Ten shillings a year in advance, post free to any part of the world, including a copy of *The Chemists' and Druggists' Diary* next published. Subscriptions may begin any month. Single copy, 6d.; Summer or Winter Number, 1s.; *Diary*, 4s. 6d. Postal orders and cheques to be crossed "Martin's Bank (Limited)."

Prix de l'abonnement annuel: le journal une fois par semaine, et l'agenda une fois par an, 12-60 francs, franco.

Jährlicher Abonnementpreis: die Zeitung einmal wöchentlich, und der Notizkalender einmal im Jahre, 10 Mark, postfrei.

Precio de suscripción anual: el periodico una vez por semana, y el agenda una vez por anno, 12-60 pesetas, franco.

Terms for advertising in THE CHEMIST AND DRUGGIST can be obtained on application to the Publisher at the

Head Office: 42 CANNON STREET, LONDON, E.C.

Telegrams: "Chemicus London." Telephone 852 Bank (two lines).

Branches: ADELAIDE, MELBOURNE, AND SYDNEY, AUST.

CONTENTS: Vol. LXXIX., No. 8 (Series No. 1647).

[The folios in this List and in the Summary are those at the top of the pages, but references in the Text are to the Index folios at the bottom of the pages.]

	PAGE		PAGE
Administration of Pharmaceutical Benefits	50	Information Department	44
Australasian News	39	Irish News	36
Births	42	Legal Reports	40
Books, New	52	Marriages	42
Business Changes <i>Col. Supp.</i>	39	Medical Gleanings	54
Canadian News	39	National Insurance Bill	43
Companies	40	Observations and Reflections	45
Corner for Students	34	Perk's Progress	51
Correspondence:		Personalities	42
Letters	58	Photographic Notes	54
Subscribers' Symposium	59	Poisonings	41
Legal Queries	59	Practical Notes and Formule	53
Miscellaneous Inquiries	60	Retrospect	60
Deaths	42	Reviews	52
Editorial Articles:		Scientific Progress	44
The Dock Strike	46	Scottish News	37
Nutritive Value of Bread	47	South African News	38
Linseed-oil Prospects	48	Summer Outings <i>Col. Supp.</i>	38
Notes	43	Trade Marks <i>Col. Supp.</i>	41
English and Welsh News	34	Trade Notes	41
French News	37	Trade Report	55
Gazette	41	Westminster Wisdom	43
India and the East	38	Wills	42

A COMMERCIAL NECESSITY.

THERE is no business of any importance conducted nowadays without advertising. It has become an uncontrovertible dictum that Press publicity is a necessary and extremely valuable factor in commercial success. But advertising must be done as scientifically and carefully as any other part of the business, and thus the best medium only must be selected and a fair trial given. Spasmodic trials or unsuitable media naturally bring disappointment, and often prejudice the advertiser. If the business to be done is in any way connected with the drug, chemical, and allied trades in any part of the world, the trustworthy journal to use is

THE CHEMIST AND DRUGGIST.

Principal Offices: 42 Cannon Street, London, E.C.
Branch Offices: Adelaide, Melbourne, and Sydney, Australia.

Summary of this Issue.

The more notable items only are dealt with.

The National Insurance Bill.

Although the progress of the Bill is suspended until October, some amendments have been put down by the Government. Those dealing with the constitution of the Health Committees are of interest to pharmacists (p. 43).

In an article on p. 50 are given some ideas regarding the practical details of the administration of the pharmaceutical benefit. Our contributor gives a method of working out the charge for the ingredients in a prescription, the dispensing charge, and the tariff for simple drugs. The directions in which it is desirable that safeguards shall be provided are also indicated.

Articles and News.

Reviews and notes on several new books appear on p. 52.

Some amusing anecdotes of French mayors are given on p. 37.

The part that insects have played in pharmacy is enlarged upon by "Xrayser II." (p. 45).

There are 45,216,665 people in the United Kingdom, according to the preliminary report of the census (p. 49).

An American chemist has repeated well-known experimental work regarding the deterioration of ammonia solution and lime-water (p. 53).

We report the annual meetings of the Pharmaceutical Associations of British Columbia, New Brunswick, and Prince Edward Island on p. 39.

The Dock Strikes in London and Liverpool are the subject of an editorial note on p. 46, and some incidents of the strikes are given on p. 35.

Sir James Sawyer has found chocolate-creams useful as a basis for medicaments. He has named these chocolate-lozenges "cremules" (p. 49).

The preparation of metol and hydroquinone developer in a concentrated form presents a technical difficulty, but a note on p. 54 tells how this may be overcome.

The reducing agents dealt with this week in the "Corner for Students" are stannous chloride, sulphurous acid, alcohol, ferrous sulphate, and sodium thiosulphate (p. 34).

The hot and dry weather has favoured the multiplication of wasps, which have become a plague in some parts of the country. We outline the method of destroying the nests on p. 49.

The question has been raised as to whether an apprenticeship in England satisfies the requirements of the New Zealand Pharmacy Board for candidates for the Licence examination (p. 39).

The question of education is the subject of reflections by "Xrayser II.," who does not agree with the suggestion that the modern language requirement should be dropped from the Preliminary (p. 45).

There is some doubt as to whether tincture of iodine is an efficient steriliser of the skin for surgeons' use. A note on p. 54 shows that the alcohol plays an important part, and that mercury perchloride in alcoholic solution is better.

Dr. J. M. Hamill has prepared for the Local Government Board a report on the nutritive value of bread. He expresses the opinion that the differences between breads made of various flours are not very great, and not of much importance to the average adult, with whom bread is only one out of many constituents of his dietary (p. 47).

Trade and Market Matters.

As a result of the dock and railway strikes and the other labour troubles, business has been dislocated in the drug and chemical markets, but values are firm generally. Chamomiles have advanced sharply; almond oil, condurango, linseed oil, benzols, and quinine (second-hands) are all more or less dearer (p. 55).

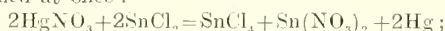
London exporters of opium and its alkaloids to India should read the paragraph from a Calcutta correspondent on p. 38.

CORNER FOR STUDENTS.

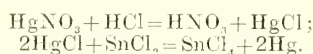
Conducted by Leonard Dobbin, Ph.D.

Oxidation and Reduction in Chemical Analysis.—VII.

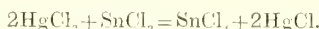
REDUCING AGENTS.—2. **Stannous chloride.**—This is one of the most powerful reducing agents employed in analysis. The reagent is commonly prepared by dissolving tin in hot dilute hydrochloric acid, and its best-known application is in testing for salts of mercury. With either mercurous or mercuric salts it gives, eventually, a black precipitate of finely divided mercury. With mercurous salts, when the reagent does not contain a very large excess of hydrochloric acid, a black precipitate of mercury is formed at once:



whereas, if it contains much hydrochloric acid, a white precipitate of mercurous chloride is first formed, and this then slowly darkens through becoming reduced to metallic mercury:



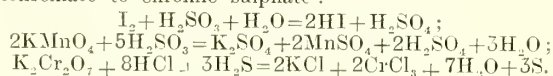
With mercuric salts, reduction to mercurous salt always takes place, with precipitation, at first, of mercurous chloride:



Excess of stannous chloride further reduces the mercurous chloride to mercury, as above. In all these reductions part, at least, of the stannous chloride is converted into stannic chloride.

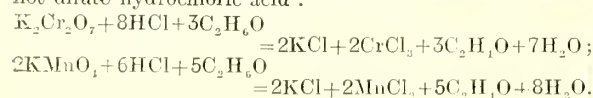
The inverse reaction in which mercuric chloride is employed in testing for tin is frequently used in examining solutions prepared from arsenium-group precipitates. It is important to note particularly that this is not essentially a reaction for tin, but that it merely shows the presence or absence, in quantity recognisable by this test, of a sufficiently powerful reducing agent to reduce mercuric chloride to mercurous chloride. The reaction is employed, however, under conditions such that stannous chloride is the only reducing agent that could be present. It is also important to note that the reaction is not a particularly delicate one, and, therefore, that it does not clearly indicate the presence of stannous chloride in minute quantity. Further, in view of the rapidity with which stannous chloride in solution undergoes oxidation by the free oxygen of the air (see article II., 1, c), no delay should occur in adding the mercuric chloride to the solution to be tested.

3. **Sulphurous acid.**—When it is not desired to test the resulting solution for the sulphuric-acid radical (compare 4 below), a solution of sulphurous acid is often used to decolorise a solution of iodine or of a permanganate, or, in conjunction with dilute sulphuric acid, to reduce a bichromate to chromic sulphate:

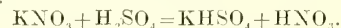


Sulphurous acid is sometimes employed in presence of hydrochloric acid to reduce arsenic acid prior to the precipitation of the arsenium as arsenious sulphide by means of hydrogen sulphide, but it is less satisfactory for this purpose, because much less rapid, than sodium thiosulphate (see 6 below).

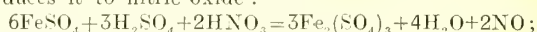
4. **Alcohol.**—In consequence of the readiness with which common alcohol is oxidised to acetaldehyde and, further, to acetic acid by powerful oxidising agents in hot acid solutions, it sometimes finds application as a reducing agent for bichromates and permanganates. It is specially valuable for such purposes in cases where sulphurous acid is inapplicable because the solution, after reduction, is to be tested for the sulphuric-acid radical (compare 3 above). In such cases it can be used in conjunction with hot dilute hydrochloric acid:



5. **Ferrous sulphate.**—The chief use of ferrous sulphate in qualitative analysis is in the well-known test for nitrates, in which its action is twofold. The solution to be tested is mixed with excess of ferrous sulphate, and concentrated sulphuric acid is then carefully poured down the side of the inclined test-tube so as to form a separate layer of liquid at the bottom. At the interface—i.e., the place where the two layers meet—the sulphuric acid interacts with the nitrate, when such is present, liberating nitric acid:

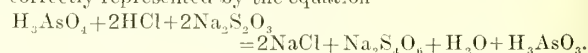


The ferrous sulphate in contact with this nitric acid reduces it to nitric oxide:



and the nitric oxide so formed unites with more ferrous sulphate to produce the familiar brown compound which renders the test characteristic.

6. **Sodium thiosulphate.**—Several methods have been employed to effect the reduction of arsenates, in order to secure complete precipitation of the arsenium as arsenious sulphide. Probably the quickest method is by aid of sodium thiosulphate. When a solution of arsenic acid or of an arsenate is mixed with hydrochloric acid and hydrogen sulphide, and sodium thiosulphate is then added, reduction takes place and an immediate yellow precipitate of arsenious sulphide is produced. We are not aware that the nature of the interaction has been minutely examined, but it is certain that a tetrathionate is formed in solution and it is probable that the reduction is correctly represented by the equation



The arsenious acid then interacts with the hydrogen sulphide, giving arsenious sulphide. Where speed is important this mode of reduction of arsenic acid is preferable to that by means of hydrogen sulphide alone, or to reduction with sulphurous acid (compare article VI., 1, b; also 3 above).

ENGLISH AND WELSH NEWS.

When sending newspapers to the Editor please mark the items of news to which you desire to call his attention.

Brevities.

The Dartford employes of Messrs. Burroughs Wellcome & Co. last quarter contributed 45*l.* 7*s.* 2*d.* to the funds of the Dartford Livingstone Cottage Hospital.

A London daily states that at a chemist's shop facing the Stock Exchange nearly 18,000 glasses of saline and lime-juice were sold during July. The shop's record for a single day is 1,400 glasses.

The wasp plague has been particularly prevalent in the Redhill district, where some 250 nests have been destroyed. It is stated that one chemist sold cyanide of potassium to sixty-six customers on wasp-destroying bent during the last few days.

At Lincoln on August 15, Herbert Roger Hiley (41), pill-hawker, etc., who was described as a chemist, was charged with attempting to commit suicide by taking chlorodyne. Prisoner was discharged on promising to abstain from drink.

Mr. A. Lander, chemist and druggist, of the Medical Hall, Canterbury, has installed a wireless telegraphy equipment at his pharmacy, by means of which standard time is telegraphed from the Eiffel Tower, Paris, and an electric clock in his shop window regulated.

A fire broke out at the rear of the shop of Messrs. F. E. Yorke, Ltd., chemists, 105A High Street, Tunstall, on August 14. The outbreak was confined to the first floor, but the flames were not extinguished before considerable damage had been done. All the account-books were destroyed.

Warwickshire beekeepers report an improved yield of honey from their stocks this summer—the best season, it is stated, for four or five years. In more than one instance has from 40 to 50 lb. of honey been gathered from a single hive. Some of it is very discoloured, but, generally speaking, it is of very good quality.

Sir Thomas Elliott, Secretary of the Board of Agriculture, in a letter to the Secretary of the Farmers' Protection Association on the question of the milk standard, states that the Board are at present in consultation with the Local Government Board on the question of whether it is possible to devise any efficient method of controlling the sale of milk which will be more acceptable to dairy farmers and local authorities than that which obtains under the present law.

The Radium Institute in Riding House Street, London, W., the most fully equipped institution of its kind in the world, was opened, without any formal ceremony, for the treatment of patients on August 14. Several cases have been selected by the medical superintendent (Mr. A. E. Hayward Pinch), and are now being treated. Much trouble was caused by applicants failing to apply for admission through a medical practitioner, and according to one report nearly a hundred patients who applied direct had to be turned away.

At Swansea Bankruptcy Court on August 14, much amusement was caused by a debtor's description of the various callings which he had followed. Brought up a miner, he rose to the position of a colliery fireman. He later started a drug business, which he continued for two years, when, to use his own words, he thought "he could do better as a boot and shoe dealer." Debtor is paying 20s. in the pound by bills over a period of fifteen months, and an application is to be made at the Court's next sitting for annulment of the bankruptcy.

The Study of Pellagra.

The Second Field Commission for the investigation of pellagra has just left London for the Continent. It is composed of Dr. Louis Sambon, Lecturer London School of Tropical Medicine and Parasitologist to the Wellcome Physiological Research Laboratories, and Dr. Albert T. Chalmers, Lecturer on Pathology and Animal Parasitology, Ceylon Medical College. These members of the Commission will be joined *en route* by Professor Haase, of Memphis, U.S.A., Dr. Cole, of Atlanta, U.S.A., and Dr. Martinez, of Yucatan, Mexico. The Commission will proceed to the study of the epidemiology and etiology of pellagra in Hungary, the Austrian Tyrol, Spain, and the South of France. Mr. H. S. Wellcome, who is a member of the Pellagra Investigation Committee, is defraying all the expenses of the present Field Commission.

International Congress of Applied Chemistry.

A further announcement has been issued regarding the arrangements for the holding of the eighth International Congress of Applied Chemistry at Washington, U.S.A., in September 1912. The new booklet contains an address to American manufacturers of chemicals and a *résumé* of the questions which have been referred to the Congress from the London meeting in 1909. These include the report of the Provisional Committee on (a) greater uniformity in the commercial supplies of potent drugs and the means for determining the same, (b) approximation in the Pharmacopœias of the world to common standards of activity. The topics for Section VIIIb—Pharmaceutical Chemistry—are stated as follows:

Papers relative to the chemical standards of Pharmacopœias.

Physical factors of chemical substances used for medicinal purposes.

All assay processes applied to organic and inorganic substances used in medicines.

Standardisations.

Statistical reports showing the uses of chemical substances in medicine.

Chemical nomenclature of medicinal substances.

Pharmacopœial purity rubrics.

British Pharmaceutical Conference.

The Portsmouth Entertainment Committee met at the County Club on August 16 under the chairmanship of Mr. T. A. White. With the exception of Mr. T. H. Cruse (Vice-Chairman), who is away on holiday, all the office-bearers and a full muster of members put in an appearance. The Treasurer (Mr. Geo. Donaldson) presented his balance-sheet duly audited, his statement that all accounts had been paid and that the Portsmouth Conference was a happy memory being greeted with applause. Several votes of

thanks were formally proposed and responded to, the officers in turn coming in for warm thanks and kindly expressed compliments. Mr. Barlow produced a large pile of letters of appreciation and acknowledgment of the Local Committee's efforts, and in response to the vote passed to himself, said, "We must admit that the Conference has been an eye-opener for many of us. We put our hearts into the work, and by loyalty to each other we have shown that Portsmouth pharmacists can do what anyone can do." On the proposition of Mr. A. B. Sparrow, the ladies were thanked for their assistance in the entertainment of the Conference.

Strike Incidents.

Liverpool chemists in the Christian Street area have had a busy time mending broken heads and tending the maimed in the riots this week. Over two hundred people have been treated at the various hospitals and dispensaries.

The mêlée in the neighbourhood of Cardiff docks on August 15, when the police found it necessary to clear the streets by baton charges, made some of the chemists in the district busy, especially in meeting the demand for surgical bandages.

At West Ham Police Court on August 11, Thomas Bush (25), carman, and Fredk. Tablin (21), labourer, were bound over for six months on a charge of damaging a pair-horse van to the extent of 5/. The van belonged to Mr. J. E. Cooper, cartage contractor to Messrs. Boake, Roberts & Co., manufacturing chemists, Stratford, and it was overturned near the latter firm's works in Carpenter's Road.

While the London strike was at its worst point on August 9 and 10 several of the wholesale druggists and sundriesmen took the precaution of labelling their vans outside with a "Red Cross" and "Drugs for hospitals," but that did not always prevent the pickets from intimidating the men. Some of the horse-vans of Messrs. Burroughs Wellcome & Co. were stopped by strikers, and the firm's motor-vans, which do not appear to have been interfered with, were working late at night delivering emergency supplies to the hospitals and retailers. We understand that pickets refused to let a van belonging to Messrs. Baiss Bros. & Stevenson, Ltd., of Bermondsey, leave the warehouse, although the vehicle was loaded with drugs for urgent hospital orders, and marked outside with a "Red Cross."

It is unfortunate that just at the period when aerated-water makers are working night and day to cope with the demand they should find great difficulty in obtaining their supplies of raw material. Messrs. Idris & Co., Ltd., issued a notice stating that in consequence of dock-labour and other strikes, they find very great delay in obtaining supplies of sugar and other materials used in connection with their business. They are using every effort to meet these difficulties, but in the meantime they ask the kind indulgence of their customers if they are unable to execute their orders as promptly as usual. Last week Mr. T. H. W. Idris stated that his company had usually twenty-five motor-vans and two hundred drays on the road, but on Wednesday and Thursday of last week they had only managed to get a few vans out, and these were turned back as soon as they left the yard. Matters have since taken a more normal course as a result of the cessation of the strike.

Nottingham Notes.

At Nottingham Summons Court on August 11, a Mrs. Wilkinson, of Hyson Green, was fined 5s. under the Merchandise-marks Act for selling herb-beer of her own make in bottles belonging to other manufacturers. The herb-beer was made for her own family use, but she sold bottles to her neighbours if they asked her to do so.

The "Nottinghamshire (Weekly) Guardian" for Aug. 12 contains a long article by Bernard W. Gill, entitled "Wild Life in Mapperley Park: How Nature may be studied even in a town." Mr. Bernard Gill is a son of Mr. W. Gill, chemist, Radford Road, Nottingham. He is twenty-years of age, and is in his father's business, and most of his observations have been made while crossing the park to the pharmacy. The present article (a column and a half in length) deals chiefly with the bird-life of the park, and is to be followed next week by one describing the wild flowers which are to be found there.

Analysts' Affairs.

Mr. F. W. Stoddart, F.I.C., has been reappointed public analyst by the Salisbury City Council. His chief assistant, Mr. H. F. Barke, F.I.C., has been appointed joint analyst.

The following samples were analysed by the Bethnal Green analyst during 1910: Glycerin 9, castor oil 2, cream of tartar 2, Bland's pills 1, and eucalyptus oil 1. All were genuine with the exception of one sample of cream of tartar, which proved to be saltpetre. A mistake obviously having been made, a caution was administered.

The Westminster analyst during the past year examined nine samples each of cod-liver oil and boric ointment, together with eleven samples of pepper and fifteen of ground ginger. All were genuine except a sample of boric ointment, which contained 11 instead of 10 per cent. of boric acid. The ointment in question was procured by the retailer from a wholesale firm, who had another sample examined, which was found to be of correct strength, but lumpy.

The Liverpool Medical Officer (Dr. E. W. Hope) shows in his report for 1910 that forty-seven formal and twenty-eight informal drug-samples were analysed, as well as eleven samples of spices. The only adulterated samples were two of ammoniated tincture of quinine (one formal and one informal) and an informally taken prescription. A sample of cream of tartar was also returned as of doubtful purity. Legal proceedings were instituted in respect to ammoniated tincture of quinine showing a deficiency in quinine sulphate (vendor to pay costs, 15s.), and lime-juice and lime-juice cordial containing salicylic and sulphurous acids (cases dismissed).

The Islington Medical Officer (Dr. A. E. Harris) reports that sixty drug-samples were examined last year. Of these three were adulterated as follows: Liniment of ammonia (30 per cent. deficient in oil, and 74.4 per cent. excess of ammonia, also 16.7 per cent. of arachis oil present; fined 2l. and 1l. 13s. 6d. costs), solution of ammonium acetate (98 per cent. deficient in ammonium acetate; fined 1l. and 12s. 6d. costs), lime-water (18.6 per cent. deficient in lime; fined 2l. and 12s. 6d. costs). Dr. Teed, the Islington analyst, in his report for the second quarter of the present year, stated that he examined seven samples each of turpentine and baking-powder, and five each of hydrogen peroxide solution and of Gregory's powder; of these the following were reported against: Two samples of Gregory's powder contained 67 and 29 per cent. of magnesium carbonate (fined 5l. with 1l. 13s. 6d. costs, and 1s. with 12s. 6d. costs respectively); four of baking-powder containing 1.3 to 12.2 per cent. of calcium sulphate (vendors cautioned); and peroxide of hydrogen solution 22 per cent. deficient in hydrogen peroxide (cautioned by letter).

Contracts.

Government Contracts.—The following new contracts have been made during July: *Admiralty*: Price's Patent Candle Co., Ltd., and C. Thomas & Bros., Ltd., Bristol, for glycerin. *War Office*: Preston's Liverpool Distillery Co., Ltd., Liverpool, for methylated spirit (running contract). *India Office*: Arnold & Sons, Down Bros., J. H. Montague, and J. Weiss & Son, for surgical instruments. *Crown Agents for the Colonies*: Vernon & Co., Ltd., for bandages; May & Baker, Ltd., and Burgoyne, Burbidges & Co., for drugs and chemicals; Society of Apothecaries, for ointments; May & Baker, Ltd., for oleum ricini; Howard & Sons, Ltd., for quinine.

From Various Courts.

At the Children's Court, Ellesmere Port, on August 9, Bernard Balmer (15) was charged with stealing 27s. from Mr. Hugh Wm. Wallis, chemist and sub-postmaster, Whitley Road. The evidence showed that altogether some 5l. of the postal moneys was missing. Prosecutor, who did not press the charge, offered to take the lad back and give him another chance. The Magistrates, in binding Balmer's father over in 10l. for his good behaviour, said he hoped the lad would show his appreciation of his master's kindness.

At Highgate Police Court, London, on August 12, Reginald Charles Roberts (18), of Burges Road, East Ham, was remanded on a charge of attempting to obtain, by false pretences, photographic goods to the value of 2l. 4s. 10d., the property of Mr. Ralph Henri Louis Watson, chemist and druggist, 182 Stroud Green Road, N., and,

further, with stealing goods to the value of 1l. 6s. 8½d., the property of Messrs. Bishop & Vincent, Holloway. It was stated that accused ordered photographic materials from Mr. Watson to be sent to "William Tyson, of Shaftesbury Road." He subsequently came back into the shop, where two policemen arrested him. An assistant to Messrs. Bishop & Vincent deposed that the prisoner ordered goods to be sent by a messenger, but the latter was met half-way towards his destination by prisoner, who said that he had forgotten the postcards, and if the messenger would go back and get them he would give him a tip. The messenger left the parcel with the prisoner, and when he returned the prisoner had disappeared.

Cricket.

Allenburys C.C. v. Burgoyne Burbidges C.C.—At The Elms, Walthamstow, on August 12, the first-named club obtained 143 runs for 7 wickets, and dismissed the opposing team for 43 runs.

The British Drug Houses C.C. v. Cambridge Medical Mission.—In this match, played at Crofton Park on August 12, the last-named team scored 100 runs for 4 wickets, against 92 by their opponents.

IRISH NEWS.

When sending newspapers to the Editor please mark the items of news to which you desire to call his attention.

Brevities.

A young man named John Johnson, aged nineteen, assistant at Mr. Williams' Medical Hall, Fermoy, was drowned on August 13 while bathing in the Blackwater, near Fermoy.

Mr. A. S. McDowell, druggist, formerly of Beersbridge Road, Belfast, has opened a business at 348 Newtownards Road, Belfast. He is a son of Mr. Samuel McDowell, of the Shankhill Drug-stores.

Mr. Joseph Samuel Evans, Ph.C., who has been for some years with Messrs. Hamilton, Long & Co., Ltd., 107 Grafton Street, Dublin, has opened a business on his own account at St. Stephen's Green.

In the list of appointments to the new Skin and Cancer Hospital, Dublin, reference was made last week to Mr. Anderson's establishment as "the Harcourt Pharmacy." We have since been informed that this title has been employed for over thirty years by another establishment in the same district.

The Infirmary Committee of the Belfast Board of Guardians reported on August 15 that the total stock of medicines and appliances in the infirmary department is 626l. 8s. 3d., in the hospital 117l. 6s. 3d., a total of 743l. 14s. 6d. The Committee are considering these returns in connection with the report of the Dispensary Committee.

The prospectus of the Municipal Technical Institute, Belfast, for the session 1911-12 has been issued this week. The specialised courses of classes include a pharmaceutical group, in which materia medica, botany, and pharmacy are taught by Mr. T. Harper, Ph.C., and chemistry by Mr. C. J. Still. The classes are held on Tuesdays, Wednesdays, and Thursdays. The fees are moderate.

The Honorary diploma of the Apothecaries' Hall of Ireland was on August 16 conferred on the Right Hon. Michael Cox, M.D., P.C., Sir James Crichton Browne, M.D., and Dr. Robert Sydney Marsden (Birkenhead.) Dr. McGennis, Governor of the Hall, presided at the function, which took place in the Gresham Hotel, Dublin. Dr. McWalter, Deputy-Governor, made an appropriate speech at the presentation of each diploma.

At the meeting of the Antrim Board of Guardians on August 10, a letter was read from the analyst, Mr. Robt. F. Blake, Belfast, stating that he would accept a salary of 15l. per annum as medicine analyst to the Union provided that the samples did not exceed sixty in number per annum, any samples in excess of that number to be paid for at the rate of 4s. each. The Clerk said that the samples in the year numbered ninety-six. The Guardians resolved to adhere to their previous resolution offering 15l. a year for the whole of the work.

SCOTTISH NEWS.

When sending newspapers to the Editor please mark the items of news to which you desire to call his attention.

Aberdeen.

The new branch of the Northern Co-operative Company at Torry, Aberdeen, is to have an addition of a doctor's surgery.

Edinburgh and District.

The steamer *Neko*, which is lying at Leith docks, is attracting attention just now. The vessel is fitted up as a floating whale-oil factory.

A few of the larger chemists' shops are short of certain lines, owing to strikes holding up goods at the various ports and intermediate stations.

"I had never thought of showing hair-brushes and combs in the window," said a local chemist the other day, "until I saw the suggestion in the *C. & D.*"

A pharmacist, who does a big business in cork and asbestos socks, remarked recently to our correspondent on the small stock of ladies' sizes required. "Because," he added, "I suppose most women's boots and shoes are on the tight side already."

Glasgow.

Five children (four brothers and a sister) were admitted to the Victoria Infirmary on August 14 suffering from poisoning through eating laburnum-pods. They have recovered sufficiently to be sent home.

FRENCH NEWS.

(From the "C. & D." Paris Correspondent.)

DATE-STONES.—M. J. de la Gardelle, having remarked that in Southern Tunisia the natives grind up the stones of dates as food for asses and camels, has analysed the flour, and concludes that it is of real alimentary value. It contains about 24 per cent. of carbohydrates, 10 per cent. of nitrogen, and 2 per cent. of fatty matter.

MINERAL-WATER IN TRANSIT.—A special bottle destined for the conveyance and preservation of mineral-waters has been designed by Dr. Boudry, and particulars have been presented to the Academy of Sciences by M. d'Arsonval. The principle is briefly described as that of a vacuum-lined vessel somewhat on the principle of the Dewar flask.

A SOUVENIR OF BERTHELOT.—A "plaquette," or rectangular medal, has been struck at the French Mint and presented to each of the Senators and Deputies as a souvenir of the State obsequies of Berthelot. It bears on the obverse an excellent profile portrait of the deceased savant, and on the reverse a representation of the Panthéon.

NEW BOOKS.—M. Ad. Carnot, ex-Director of the Paris School of Mines and brother of the ex-President of the Republic, publishes the third volume of his "Treatise on the Analysis of Mineral Substances," which deals with alkaline and alkaline earthy metals, rare earths, and iron ores. Assistant-Professor G. Roux and M. Rochaix, of Lyons, have issued a second edition of their "Précis de Microbie à de Technique Bactérioscopique."

POPPY-HEADS AS POISON.—As already mentioned in the *C. & D.*, the Minister of Agriculture has issued a circular to the proper authorities advising them that poppy-heads have been added to the Poisons Schedule. "There is no doubt," says the circular, "that the practice (existing in certain parts of France) of administering poppy-head decoction to infants as soothing-syrup, without a medical prescription, presents serious dangers from the point of view of public health; that it is well proved to have already caused many deaths, and to be one of the causes of the high rate of infantile mortality in Northern France." In the South, the innovation meets with scanty appreciation from the pharmacists.

THE PRICE OF PROGRESS.—M. Fernand Momméja publishes in "Le Temps" the result of his personal inquiries into the question "What is the annual price the modern middle-class Parisian tradesman pays for social progress,

as represented by the new labour laws?" He takes as the basis of his study three important and recent measures: the Employers' Liability Act, the Old Age Pension Act, and the Weekly Rest Act; and classes results by trades, thus:

PHARMACISTS.—A small pharmacist manages his officine alone; an average man employs from one to three apprentices and as many shop-porters; a large establishment, ten apprentices or assistants and a dozen shop or laboratory porters. An apprentice is paid 250f. to 300f. a month, a porter 35f. a week. The insurance premium amounting to 0.50 per cent. of the wages bill, the Employers' Liability Act costs 38.40f. to the average pharmacist and 274.20f. to the large establishment. Weekly rest implies every second Sunday, *plus* two weekdays a month. If the absent man is not replaced this means extra work for those remaining. If he is replaced, one-seventh is added to the wages bill—1.097f. for the average and 7.834f. for the large pharmacy. The Pension Act costs 13.50f. to the average and 108f. to the large employer, exclusive of the employer's contribution for persons who, although earning over 120f. per annum, have the option of profiting by the law.

In the course of his general observations, M. Momméja says: "The Weekly Rest Act costs me 400f. a year," one of the managers of one important pharmacy remarked to me. "It's a large sum, but little in comparison with our turnover."

The Pharmacist in Fiction.

THE Provençal pharmacist is evidently destined to figure prominently in French fiction. Daudet's Bezuquet and Pascalon, the Tarascon pharmacist and his assistant, are already familiar to readers of French novels throughout two hemispheres. Jean Aicard's "Maurin" (almost as amusing as "Tartarin," and dealing with a neighbouring district, between St. Raphaël and Hyères) has already been translated into English, but it may not be generally known that the character of Cigalous is drawn from life.

The "Figaro" reporter was at Bornes (a little place near Toulon) with Jean Aicard at a rural *fête*, when the latter said to him, "Look here—that is M. Cigalous." And he pointed to the Mayor of Bornes, M. Vigourel (continues the pressman), who was presiding at the festival. It is this excellent man—a pharmacist by profession—who, under the name of Cigalous, is mixed up like a happy Providence with the occasionally dangerous adventures of Maurin. Physically he is "a man of middle height, with grey hair and beard, an energetic and good-natured man, and frank eyes beneath his shining spectacles," as described in the novel, and it is quite possible that he is "an unconscious and incorrigible idealist of liberty, justice, and kindness." He has the local "accent"—a magnificent accent—all that amusing familiarity of these people of the Var department, who puts you at your ease in no time, and he *galeges* (chaffs or brags) with a wit that is rendered pointed by his air of mock gravity (*pince-sans-rire*). Naturally he is full of droll and suggestive tales, and he boasts of having furnished many to his friend Jean Aicard. He claims the tale of the mad dog, chased from one borough to the other, as his own. "Is it not quite natural," he asks, "that a good and economical Mayor should chase off his own territory all that creates expenses and formalities? For instance, if a boat laden with spirits is wrecked off our coast," says he, "do you think that it is right what happens? If a little rum or cognac is washed ashore—oh, that belongs to the Government! But if it's a corpse, then they bring it to me and say I must bury it at the parish expense."

"And that costs?"

"Fifty francs a head, Monsieur. So," lowering his voice, "when I see one floating in, I just tow it out into the nearest sea-current and let it float a little further—to St. Raphaël, for instance."

Some years ago when staying at Hyères I knew another pharmacien, a tall, genuine, hearty type of man, who for more than a decade had been Mayor of that attractive health-resort and had successfully steered its municipal bark. He also had a fund of reminiscences, told in a pleasant breezy way that might well have attracted the writer of romance, not the least amusing of which was his experiences many years ago with an English assistant who was unfortunately addicted to drinking. The Mayor would invariably terminate any account of the latter's exploits by the expression "il était trunk," said in a serious tone, but with a full Southern accent that quite removed the sting of scorn it was intended to convey.

PROPRIETARY MEDICINES IN CHILE.—H.M. Consul-General at Valparaiso, in his report on the trade of Chile in 1910, which will shortly be issued, states that there is an increased demand for British proprietary medicines.

SOUTH AFRICAN NEWS.

(From "C. & D." Correspondents.)

"The Chemist and Druggist" is regularly supplied by order to all the members of the seven Societies and Associations of Chemists in British South Africa, as well as to other chemists in business there.

British South Africa.

CUSTOMS DECISIONS.—The following Customs decisions have been given relative to the rates of duty leviable on the undermentioned articles imported into British South Africa :

	Rate of Import Duty	Rebate for U.K. Manufacture
Carmine colouring for ice-cream... ..	15 % <i>ad val.</i>	3 % <i>ad val.</i>
Chocolate worm-cake—a medicinal specific	25 % "	3 % "
Electrophone (Stolz), a device for making the deaf hear	15 % "	3 % "
Motor savril, a liquid soap for cleansing motor-cars, etc...	4s. 9d. per 100 lb. or 25 % <i>ad val.</i> , which-ever shall be the greater.	7d. per 100 lb. or 3 % <i>ad val.</i> , as the case may be.
Sour-milk chocolate-creams (apothecary ware)	15 % <i>ad val.</i>	3 % <i>ad val.</i>
Spiritine—a solidified emulsion of soap and alcohol (mixed spirit)	17. per Imp. gal.	Nil
Concentrated citricous mineral-water acid (a substitute for tartaric acid or citric acid) used in mineral-water manufacture	15 % <i>ad val.</i>	3 % <i>ad val.</i>

Natal.

BUSINESS CHANGE.—Mr. A. H. Todd, Ph.C., has purchased the Greenwood Park and Redhill Pharmacy, Redhill, near Durban, from Mr. E. S. Whysall, chemist and druggist.

INDIA AND THE EAST.

(From the "C. & D." Correspondents.)

NEW BUSINESS.—Messrs. Campbell Smith & Co. have opened a new drug-business at Lahore.

DURBAR PHARMACIES.—Messrs. F. Bliss & Co., Simla, Messrs. E. Plomer & Co., Lahore and Simla, and Messrs. W. Cotton & Co., Simla, are opening temporary pharmacies at Delhi to meet the demand for dispensing from the large number of British visitors to the Durbar. Messrs. Bliss's pharmacy is to be opened on October 1.

INDIA'S TRADE-BOOM.—The review of the trade of India for 1910-11, by Mr. F. Noël-Paton, Director-General of Commercial Intelligence, has just been received from Calcutta, and it appears from the summary contained therein that the actual increase in the trade of India is greater than that of the Mother Country and of the principal countries of Europe and America. The increase in India's grand total of exports and imports was 10.48 per cent., as against 6.7 per cent. in the United States, 6.3 per cent. in Germany, 3.4 per cent. in Austria-Hungary, and 6.7 per cent. in France.

OPIMUM AND MORPHINE LICENCES IN BENGAL.—It may interest exporters to know (writes a Calcutta correspondent) that importers' licences are now necessary before chemists and druggists in Bengal are allowed to import opium and morphine. The authorities have not yet decided as to how far preparations of opium and morphine are to be included in this rule, and their decision is awaited with interest by the trade. These licences are to be granted on a very limited scale, and it is anticipated that some hardship will be suffered by quite *bona-fide* wholesale firms

who have imported these drugs for years. In Madras, where a similar rule has been in force for some time, even opium plaster is included in the schedule. It is to be hoped that somewhat more latitude will be allowed in the Bengal province. In the meantime London exporters would do well to get indents for morphine and opium confirmed, as consignments are being detained by the Customs authorities at Calcutta, and will not be released except to licence-holders.

VEGETABLE OILS.—The Government of India appear to have come to the conclusion that it is worth while to collate all the information available on Indian vegetable oils, and under their instructions the authorities of the Economic Museum, Calcutta, have inaugurated a thorough investigation, and Mr. David Hooper, F.I.C., F.C.S., has been carrying out chemical analyses of many vegetable oils, the results of which have been published from time to time. In the annual report of the Board of Scientific Advice for 1909-10, there is an interesting chapter on "Industrial and Agricultural Chemistry," by Mr. D. Hooper and Dr. J. W. Leather, in which a large number of Indian vegetable oils are dealt with. Cotton-seed oil is referred to first; samples of oil obtained from American seed grown at Dharwar were analysed, and the results show that chemically the oil from Egyptian and Indian cotton-seed is much the same, both yielding about the same percentage of stearin. But the Indian cotton-seed oil contains a larger percentage of acidity, which, however, can be entirely removed by subsequent washing, and a refined oil obtained having the same yellow colour and other properties of the Egyptian refined oil.

THE REPORT of the Sanitary Commissioner for Bengal during 1910 contains some interesting observations on plague, cholera, vaccination, etc. As regards cholera the Patna and Tirhut divisions suffered most severely, and, as usual, the disease was spread by the disregard of precautions in respect of drinking-water. The use of permanganate of potash for disinfecting wells was resorted to with good results, noticeably in Gaya, Shahabad, Champaran, and Darbhanga; but in Purnea, owing to the ignorance of the people, opposition was encountered. The number of inoculations against plague was only 349, as against 704 in the preceding year; the use of "kerosene-oil emulsion" was tried in some districts, but with what results is not stated. In order to fight malaria, a regular free issue of quinine was made to Government servants in receipt of pay of Rs. 10 per mensem and less, but it is significant that the districts of Shahabad, Darjeeling, and Purnea, in which the highest mortality from malaria was recorded, show a comparatively small consumption of quinine. For snake-bite ninety cases were treated with permanganate of potash, as compared with fifty-nine during 1909, of which nearly 82 per cent. are claimed to have recovered. Nine cases out of eleven treated with "antivenene" in Saran proved successful.

QUININE AND MALARIA.—In the course of the Inspector-General's report on the Bengal hospitals it is stated that "As the outcome of the Malaria Conference held at Simla in October 1909, a Provincial Malarial Committee was established, and a special Deputy Sanitary Commissioner was appointed to conduct continuous investigations into the prevalence of this disease. The arrangements for the sale of quinine were overhauled, the quantity sold for one piece was increased from 7 gr. to 10 gr., the drug was issued in tablet as well as powder form, and a system of district distributing depôts was initiated. It is satisfactory to observe that the sales, which amounted in 1909 to 1,194,267 packets and 464,034 tablets, rose in 1910 to 1,570,666 packets and 1,181,140 tablets, but much still remains to be done towards popularising this remedy, especially by increasing the number of non-official vendors, thus rendering this medicine easily accessible to all. The procedure of deputing itinerant Sub-Assistant Surgeons to give gratuitous relief during the fever season in the worst-stricken areas was initiated in 1908, and has been continued each year since with most satisfactory results. The experiment of giving simple instruction in schools regarding the causes of malaria and how it should be combated is about to be tried; the distribution of leaflets on the same subject has been in force for some years."

AUSTRALASIAN NEWS.

"The Chemist and Druggist" is regularly supplied by order to all the members of nine Societies of Chemists in Australia and New Zealand, as well as to other Chemists in business there.

The Commonwealth.

SAMPLES OF MERCHANDISE sent by English manufacturers to residents in the Commonwealth, mostly in consignments of some hundreds, are in future to be charged duty, notwithstanding that the amount to be collected on an individual package does not exceed 1s. An order to this effect was issued on June 14. The previous general order as regards free delivery is not to apply to cases of this nature.

New South Wales.

PHARMACY BOARD.—The monthly meeting was held on June 13, when there were present Messrs. T. S. Loney (in the chair), A. Wadsworth, T. M. Snelson, L. P. Williams, and W. Blackall. The Registrar reported that an unregistered man has been sent to the country to take charge of a pharmacy, and it was decided that a regulation should be made empowering the Registrar to give notice in such cases that a qualified man must be employed.

ADVERTISING A PROPRIETARY MEDICINE.—The first case of prohibition under the Food and Drugs Act was issued on September 21, 1910, against Dr. Martin, for advertising the J. A. Sherman rupture-cure. The case was heard from February 13 to 17. The Board of Health was represented by Mr. Rolin, and Dr. Martin by Dr. Shann, K.C., and Mr. Schutt. Dr. Palmer and Dr. Ashburton Thompson assisted the counsel for the Board. The case was that a rupture could not be cured except by operation, and could only be relieved by the support of a truss, and that Dr. Martin's treatment was useless. Dr. Martin brought fourteen witnesses saying that they had been cured. Dr. Bowker, at the request of the Board, examined five of those who had been treated, and in respect of four—one of three years', others of fourteen, twenty-six, and fifty years' standing—said he could not find any trace of rupture. In the fifth case he found a slight trace, this case having just been treated. The Judge's report to the Chief Secretary was to the effect that the prohibition should be withdrawn and that Dr. Martin should modify his advertisements. The Judge said it was proved on the evidence of reliable and intelligent witnesses that they had been cured by Dr. Martin and enabled to resume their work, also that Dr. Martin had no training in anatomy, surgery, or therapeutics, but was well acquainted with the anatomy of the part included in the trouble he treated.

New Zealand.

APPRENTICESHIP IN ENGLAND.—An application for registration was submitted to the Pharmacy Board on June 9 by an applicant who, although having passed the New Zealand Professional examination, had served an apprenticeship in England to a chemist and druggist carrying on business there. The point has on previous occasions been referred to, but it has not until now presented itself in such a way as to require decision. The New Zealand Act requires the acceptance of an English certificate of qualification, but the question is—Does service under articles outside New Zealand to a chemist not on the New Zealand Register satisfy the condition contained in the New Zealand Act requiring service for three years under articles to a registered chemist, or chemist and druggist, or homœopathic chemist? At the meeting the matter was carefully considered at some length, it being finally decided to reply stating that the application would be held over, the Board not being satisfied that apprenticeship served out of New Zealand complied with the condition of the Act. In the meantime the Registrar has been instructed to go into the matter and submit written legal opinion.

Tasmania.

FEEDERS WITH TUBES.—Pharmacists are considerably exercised in their minds owing to the prohibition of the "Alexandra" and Maw's "No. 1" feeders under the Food and Drugs Act. One chemist, at least, who had a

window-display of this line, has been notified by the Chief Health Officer that he is breaking the law, and is liable for the penalty under the Act. It is likely that a deputation will wait on the Chief Health Officer to ask for an extension of time before putting this regulation into effect, to allow of the disposal of existing stocks.

Victoria.

THE PHOSFERINE TRADE-MARK.—In the Supreme Court of Victoria on June 19, by consent, the Chief Justice granted an injunction to restrain Edward John Lewis and Leopold O'Donnell, trading as Lewis & O'Donnell, Bourke Street, Melbourne, from infringing the trade-mark of Ashton & Parsons, Ltd., "Phosferine."

CANADIAN NEWS.

(From the "C. & D." Correspondent.)

ASSISTANTS' ASSOCIATION.—The "drug clerks" of London, Ont., at a meeting on June 14, organised a local Drug Clerks' Association. The officers selected were Mr. A. Kitchen, President; Mr. J. H. James, Vice-President; and Mr. Geo. Taylor, Secretary. Apart from the work of organisation, a picnic was arranged to be held at Springbank.

PRINCE EDWARD ISLAND PHARMACEUTICAL ASSOCIATION.—At the annual meeting held at Charlottetown on June 22 the following officers were elected: *President*, J. G. Jamieson; *Vice-President*, A. R. Crosby; *Secretary-Registrar*, M. M. Johnson; *Treasurer*, Hon. Geo. E. Hughes. The *Council* consists of the above officers, with D. O'M. Reddin, G. A. B. McDonald, and Ernest A. Foster. *Auditors*, A. E. Foster and G. A. B. McDonald.

MANUFACTURE OF COD-LIVER OIL.—The Government of Newfoundland employed Mr. M. B. Simonsen to visit and advise manufacturers of cod-liver oil as to the necessary precautions that must be taken to ensure the production of oil of the highest grade. Mr. Simonsen has had experience in the Lofoden Islands, and his engagement by the Government was in fulfilment of promises that have been made to assist in the scientific development of local industries.

THE NOVA SCOTIA PHARMACEUTICAL SOCIETY has been making arrangements with Dalhousie University with a view of affiliating the Nova Scotia Pharmaceutical College with that university. It has been agreed that the affiliation shall take place, as a result of which students at the Nova Scotia Pharmaceutical College will be able to attend lectures, obtain laboratory work and help in their studies from the staff of professors and lecturers at the fee of \$75 per annum.

NEW BRUNSWICK PHARMACEUTICAL ASSOCIATION.—The annual meeting was held on June 28 at Loch Lomond, St. John, President McDonald in the chair. The following officers were elected: *President*, R. Harry Robb, St. John; *Vice-President*, Arthur J. Ryan, Fredericton; *Secretary*, C. Fred Chestnut, Fredericton; *Treasurer*, Geo. Y. Dibblee, Fredericton; *Registrar*, E. R. W. Ingram, St. John West. *Council*: The above officers and A. D. Johnstone, St. Stephen; J. W. Wiley, Fredericton; Alonzo Staples, Fredericton; E. A. Burchill, Fredericton; A. W. Combes, St. Mary's; R. W. George, St. Mary's.

BRITISH COLUMBIA PHARMACEUTICAL ASSOCIATION.—The annual meeting of this Association was held at New Westminster on June 15, and consisted of a business meeting, an excursion to Huntingdon, and a dinner at the Russell House Hotel. The first matter which occupied the attention of the members in the business meeting was the non-compliance of physicians with the provisions of the Medical Act regarding the writing of prescriptions on pads supplied by druggists. It was decided by means of a circular letter to draw the attention of the medical men to the provisions of the Medical Act. The election of officers resulted as follows: *President*, John Cochrane, Victoria; *Vice-President*, J. L. White, Greenwood; *Secretary, Registrar, and Treasurer*, James W. Browne, Vancouver. *Council*: R. R. Burns, Vancouver; J. H. Emery, Victoria; E. S. Knowlton, Vancouver; and F. J. Mackenzie, M.L.A., New Westminster.

LEGAL REPORTS.

TRADE LAW.

A Chemist's Advertisement.—At Croydon County Court on August 11, an application made on behalf of Mr. James Thomas, trading as Carter & Co., chemists, 75 Westow Hill, Upper Norwood, London, S.E., for a new trial of the action *Neves and Biscoe v. Thomas* was dismissed by Judge Harrington. In the previous Court the Registrar had held that a verbal order for a 2/ advertisement had been given to a canvasser, although a request to sign a written order had been refused. The Judge said the case was purely a question of fact—whether the Registrar believed the evidence of one party or the other. The plaintiffs had stated that there was no written contract, but that they had received a distinct verbal contract. He had come to the conclusion that he could not grant a new trial, as there was not sufficient evidence to warrant him so doing. An application on behalf of plaintiffs for further costs was acceded to.

Breach of Agreement.—Before Judge Millington, District Judge of Hatton, Ceylon, Messrs. W. Jordan & Co., chemists and druggists, Talawakele, Ceylon, sued Mr. Arthur Fox, a chemist and druggist, for breach of contract, claiming Rs. 2,000 as damages. It appeared from the evidence that on December 10, 1909, they agreed to employ the defendant as chemist and general assistant at Lindula for three years, commencing on January 1, 1910. It was stipulated that in case of a breach of the agreement by defendant, he should pay Rs. 2,000 as liquidated damages. On January 5, 1911, defendant quitted their service. The defendant admitted the claim, and offered to pay the amount by instalments. He stated that he left Jordan & Co. because he got a better offer from Walker & Greig. Mr. Jordan was then at home in England, and the manager said he would do his best to get the indemnity waived. Mr. Jordan had, however, declined to waive the indemnity. Mr. Van Rooyen, who appeared for the plaintiffs, objected to an instalment decree, and his Honour entered judgment for plaintiffs, as asked for, remarking that he did not think defendant deserved the indulgence of an instalment decree, and that he should not have accepted a new appointment if unable to pay the indemnity.

County Court Case.

SWEET NITRE SUBSTITUTE.

In the case heard by Judge Benson in the Sheffield County Court on August 10 and 11, the chief question at issue was whether a dose of sweet nitre substitute called "niterine" taken by a woman in October was connected with her death the following February, and whether there had been negligence on the part of the tradesman who supplied the substitute, William Harpin, gasfitter, Bramley, suing Walter Roberts, grocer, Maltby, for 100/ damages on the above grounds.

Mr. T. E. Ellison, who appeared for plaintiff, stated that on October 13 plaintiff's daughter went to defendant's shop for $\frac{1}{2}$ oz. of sweet nitre, and it was alleged that she was served with a liquid, which proved to be "niterine," which was poured into a cup without being measured. Mrs. Roberts took this, and immediately collapsed. Dr. Wood, who was called in, being of the opinion that but for prompt attention she would have died. Later her mind became deranged, and she was admitted to Wadsley Asylum, suffering from religious mania, where she died in February last from a form of pneumonia.—Dr. Wood, during cross-examination by Mr. Neal for the defence, said he had found symptoms of poisoning, he believed, by some ethyl compound.

Mr. Neal: Do you seriously say her death in the asylum in February was connected with something that happened in October?—Witness: I do.

Mr. Neal: Religious mania brought on by sweet nitre substitute?

Witness: I say this poison she had on October 18 was the exciting cause, because nearly all cases of mania and allied mental conditions can be traced to some sort of excitement.

Defendant said a fortnight before October 18 plaintiff's daughter asked him at his shop for sweet nitre. He told her that he did not sell it, but had a substitute, "niterine," of which she took $\frac{1}{2}$ oz. She asked for sweet nitre on October 18, and he again produced the substitute, telling her what it was. He stated definitely that he measured it out in a graduated glass. The

dose was the same as for sweet nitre, half to one teaspoonful in water.

Evidence was given by a representative of Messrs. Bonell & Co., drysalts, Derby, who supplied the "niterine," and also by a member of the firm of Messrs. Davies, Sons & Co., manufacturing chemists, Derby, who supplied "fluid nitritum" to Messrs. Bonell & Co., drysalts, Derby.

Dr. Duffy, of Maltby, said he had often used fluid nitritum without harmful effects, and that it would need a wonderful stretch of imagination to assume the woman's death was due to "niterine."

Analysis by Mr. J. Evans, F.I.C., Sheffield, showed the medicinal constituent of "niterine" to be about 4.48 per cent. of sodium nitrite. That, said Mr. Neal, showed Dr. Wood was wrong in assuming the dominant constituent was a poisonous ethyl compound. He asked, "What evidence was there that if the same quantity of sweet nitre had been taken it would not have had the equally disastrous results described?" He submitted that the evidence showed that a poisonous substitute was not sold for sweet nitre, and that the claim was grossly exaggerated.

His Honour said the case was one of a serious nature. If negligence were proved his duty would amount to a verdict of manslaughter and nothing else, but he held there had not been negligence.

He dismissed the claim, with costs.

Sale of Food and Drugs Acts.

SWEET SPIRIT OF NITRE.

At Grimsby on August 9, three local grocers, Thomas Mackrill, Fred Draycott, and Wm. Bates, were each ordered to pay costs (7s. 6d.) for selling sweet nitre deficient in active ingredient. The respective deficiencies in ethyl nitrite were 62.44, 39.2, and 18.8 per cent. The Stipendiary observed that such a volatile spirit as sweet nitre was not an article for sale by tradesmen who did not understand its properties. Defendants gave an undertaking not to sell the drug again.

LIMITED COMPANIES.

New Companies Registered.

The letters P.C. mean Private Company within the meaning of the Companies Act, 1907, and R.O., Registered Office.

VAR, LTD.—Capital 100/., in 1s. shares. Objects: To carry on the business of general merchants, importers and exporters of foods, medicines, drugs and perfumes, etc. The first directors are G. H. B. Dalnan, W. H. Wreford, and N. E. Robins. R.O., 87 Bishopsgate, London, E.C.

ROCKINGHAM GLASS WORKS, LTD. (P.C.).—Capital 1,000/., in 1/ shares. Objects: To take over the business of a glass-bottle maker carried on by W. Drake at Rockingham Street, London, S.E., as the "Rockingham Glass Works." R.O., 39A Rockingham Street, Newington Causeway, London, S.E.

SHIPWAYS, LTD. (P.C.).—Capital 1,000/., in 10/ shares. Objects: To carry on the business of chemists, druggists, dealers in pharmaceutical, medicinal, and chemical articles, etc. The first subscribers are: B. D. Dawson, Grange Villa, Station Road, Whitestakes, near Preston, clerk; and R. G. Garlick, 31 St. Andrews Road, Preston, clerk.

E. ASHLEY, LTD. (P.C.).—Capital 500/., in 1/ shares. Objects: To take over the business of a chemist, druggist, and drysalter carried on by E. Ashley at Cheapside, Derby, and elsewhere. The first directors are: E. Ashley, 4 Cheapside, Derby, druggist's sundriesman; and W. W. Harvey, 2 Curzon Street, Derby, pharmacist. R.O., Cheapside, Derby.

HINTON LAKE & SON, LTD. (P.C.).—Capital 10,000/., in 1/ shares. Objects: To take over the business carried on at Exeter and Sidmouth as "J. Hinton Lake," and to carry on the business of chemists, druggists, drysalts, oil- and colourmen, etc. The first directors are: J. Hinton Lake, 46 Magdalen Road, Exeter, chemist; and J. W. Lake, 9 Prospect Park, Exeter, chemist.

Company News.

NUVITÉ, LTD., NORWICH (in liquidation).—A meeting of creditors will be held at the office of Mills & Reeve, 69 London Street, Norwich, on August 30, at noon.

LONDON COMMERCIAL SALE ROOMS, LTD.—The directors announce an interim dividend at the rate of 6 per cent. per annum (6s. per share), free of income-tax, for the past half-year.

BYRNE'S PHARMACY, LTD.—A general meeting of the shareholders of Byrne's Pharmacy, Ltd., is convened by the liquidator, Mr. Joseph Tumulty, at Leinster Chambers, 43 Dame Street, Dublin, for September 12, to receive the liquidator's report.

Charges or Mortgages.

Under the Companies (Consolidation) Act, 1908, Section 93, the mortgages or charges therein specified are (except in Scotland) void against the liquidator and any creditor of the company unless filed with the Registrar in accordance with the conditions laid down in the Act.

Full statutory particulars of the following have been filed at Somerset House, London, W.C.

Baird & Tatlock (London), Ltd.—A memorandum of satisfaction in full, on July 31, of debentures dated April 8, 1904, securing 3,000*l.*, has been filed.

Bara Bitters, Ltd.—Particulars of 200*l.* debentures, created June 24, 1911, have been filed, the amount of the present issue being 50*l.* Property charged: The company's property, present and future, including uncalled capital.

W. Bates & Co., Ltd.—Particulars of 1,500*l.* debentures, created March 14, 1906, have been filed, the amount of the present issue being 150*l.* Property charged: The Company's undertaking and property, present and future.

Dr. Richard Jeschke Co., Ltd.—Debenture dated July 29, to secure 300*l.*, charged on the company's undertaking and property, present and future, including uncalled capital. Holder: G. Wackwitz, Meissnerstrasse, Kotschenbrodd, near Dresden, Saxony.

Peptine Maltine, Ltd.—Mortgage on freehold land, with factory, etc., now in course of erection, at Thurmaston, Leics, dated July 19, to secure all moneys due or to become due from company to the Northamptonshire Union Bank, Ltd.

Rezell, Ltd.—A memorandum of satisfaction in full of charge dated November 7, 1907, securing 1,250*l.*, has been filed.

Receiverships.

Nonal Co., Ltd.—Notice has been filed of the appointment of J. Mackintosh, 54 Salford Road, Streatham Hill, London, S.W., as receiver and manager, on August 3.

F. W. Sutcliffe & Co., Ltd.—Notice has been filed of the appointment of H. J. Day, 12 South Parade, Leeds, as receiver on July 29.

POISONING FATALITIES.

TWELVE suicidal deaths have been chronicled since our issue of last week.

Ammonia was responsible for three suicidal deaths—viz., Gertrude Hill (21), the wife of a Bredbury labourer; John Rutherford (58), retired carpenter, Calne; and a South Elmsall dressmaker.

Arsenic caused the self-inflicted death of Mathew O'Neill, market-gardener, Milltown, co. Dublin. Deceased had a few days previously been treated by Dr. W. V. Johnston, Ph.C., for strychnine-poisoning.

Carbolic Acid was used for suicidal purposes by Nellie Parsell (24), of Tenby, and Ann Sharratt (42), cook, St. John's Wood, London.

Laudanum.—At the inquiry held at Barnsley into the death of John Robert Petch (50), manager for the local branch of Taylor's Drug Co., Ltd., it was stated that deceased died from laudanum-poisoning. It appeared that deceased, who left a large family, had private financial troubles. A verdict of "Suicide while of unsound mind" was returned.

Oxalic Acid.—Frank Harding (33), wheelwright, Camden Town, and Geo. Thos. Watkinson (41), fish-curer, Old Ford, committed suicide by taking this poison.

Salt of Lemon.—At Battersea, Maud Kettle (28), plasterer's wife, ended her life by taking this poison.

Spirit of Salt.—Ehza Edwards, of Homerton, died in the Victoria Hospital, Southend, from the effect of spirit of salt, self-administered.

Strychnine.—At Birmingham, Herbert Wiseman (49), hosiery, intentionally killed himself by taking strychnine.

TRADE NOTES.

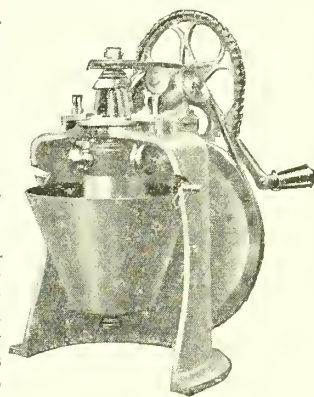
STOCKTAKING.—Messrs. Burroughs Wellcome & Co., Snow Hill Buildings, London, E.C., will close their warehouses on Thursday, August 31, for the purpose of stock-taking. Only emergency orders will be executed on that day.

THERMOLIQUE THERMOMETER CASE.—The illustration shows a new idea for keeping clinical thermometers aseptic, which has been suggested by Dr. A. Gordon Wilson, South Kensington, and is made by Messrs. C. J.



Hewlett & Son, Ltd., 35 to 42 Charlotte Street, London, E.C. The case is made of toughened glass, and is closed with a rubber stopper. It is intended to be filled with a one-per-mille solution of mercury perchloride before inserting the thermometer. The case is sold separately or containing a clinical thermometer.

A NEW EMULSIFIER.—A new emulsifying machine, which has been placed upon the market by the patentees, Messrs. H. T. Boothroyd, Ltd., Bootle, Liverpool, is illustrated here. It is a machine which is claimed to answer the requirements of both large and small manufacturers of emulsions. It works in the following manner: The raw materials are placed in proper sequence in the bucket-shaped receiver, and by means of a rotary screw are drawn up through a hollow cylinder, being a form of screw force-pump. The whole matter is also kept agitated by means of a separate propeller arm. The rotary screw in the cylinder has just sufficient clearance left between the side of the



cylinder and the screw to permit a grinding action on the ingredients, thus splitting them up into minute particles, and completing what is usually a separate process in emulsifying machines. The ingredients in this semi-emulsified condition are continually being carried forward and churned up, under the pressure of the screw-pump, and are then forced through a series of perforated discs or nozzles. The pressure of the emulsion being forced through the perforations can be adjusted to give the quality of the emulsion required. The process is carried on until the desired quality is obtained, and from start to finish no other operation or machine is required. An important feature of the machine is that bottles and vessels can be filled under pressure while the machine is working, and thus the mixing-tank can be emptied of all its contents. The machine is made in all sizes for both power and hand driving, and is so simple in construction that it can be taken apart in a few moments for cleaning purposes. Egg, lichen, mucilage, or gum emulsions of all kinds can be manufactured in this machine, and, the product being perfectly homogeneous, the emulsion keeps indefinitely without separating. The smallest size which is manufactured deals with 1 gal. in approximately eight minutes, and is a very useful size for small makers; but the choice of sizes is such that the patentees can satisfy all emulsion-makers, no matter on what scale the work is done.

GAZETTE.

Partnership Dissolved.

BOYCOTT, W. F., and BORN, E. T., Manchester, surgeons and general medical practitioners, under the style of Boycott & Born.

BIRTHS.

BAUMANN.—On August 10, the wife of Frank N. Baumann, manager of Messrs. Burroughs Wellcome & Co., Milan, of a son.

BRADY.—At 12 Park View Avenue, Harold's Cross, Dublin, on August 6, the wife of Frederick H. R. Brady, Ph.C., of a son (Rochfort Hugh).

MARRIAGES.

CHALMERS—COURTNEY.—At St. Stephen's, West Ealing, on August 12, by the Rev. Dr. Tupholme (vicar), William Chalmers, of *THE CHEMIST AND DRUGGIST*, to Ethel, daughter of the late William Courtney and Mrs. Courtney, of 209 Amesbury Avenue, Streatham Hill, London, S.W.

CHARLES—UNSWORTH.—At the Methodist Church, Ballynahinch, co. Down, on August 7, by the Rev. John Coulson, Jackson A. Charles, Ballynahinch, to Isabel Unsworth, registered druggist, second daughter of Mr. J. C. Unsworth, Railway Street, Ballynahinch.

DORAN—TAFT.—At St. George's Presbyterian Church, East London, Cape Colony, on July 17, by the Rev. Geo. Blair, James B. Doran, L.P.S.I., Kimberley, to Margaret, daughter of the late Mr. John H. Taft, Barrow-in-Furness.

HARPER—DAVIDSON.—At Berry Street Presbyterian Church, Belfast, on August 9, by the Rev. W. J. Currie, B.A., Theophilus Harper, Ph.C., of Messrs. Grattan, Corn Market, and lecturer on pharmacy and materia medica at the Municipal Technical Institute, Belfast, to Martha, second daughter of the late Mr. John Davidson, Greyabbey, co. Down.

KITTLE—ROWLAND.—At All Saints', Roffey, on August 10, Ernest Arthur Lewis Kittle, pharmacist, 1 Carfax, Horsham, to Kathleen Annie, second daughter of Mr. Sidney E. Rowland, Bramlynus, Horsham.

PATERSON—THOM.—At Sydenham, Newmains, Lanarkshire, on August 10, by the Rev. J. P. Murdoch, M.A., B.D., Cambusnethan U.F. Church, Andrew H. Paterson, chemist and druggist, Leith, to Martha, second daughter of Mr. Neil Thom, J.P., Newmains.

DEATHS.

BANKS.—At 5 West Park, Wick, on August 12, Mr. John Banks, chemist and druggist, Bridge Street, Wick, aged eighty-two. Mr. Banks was in business before the passing of the Pharmacy Act of 1868. He was the oldest merchant in Wick, and one of the oldest chemists and druggists in Scotland. He served his apprenticeship at Thurso, his native town, and began business on his own account in Bridge Street, Wick, fifty-seven years ago, continuing it until five days of his death. He is survived by a widow, six sons, and one daughter. Mr. and Mrs. Banks celebrated their golden wedding about two years ago. Mr. George Banks, chemist and druggist, who has been associated with his father in business for the past seven years, will continue in the management.

CRABB.—On August 12, after five weeks' illness, Mr. James Stuart Crabb, Station Pharmacy, Sunningdale, Berks, aged thirty-two. Mr. Crabb became prominent in the public Press owing to his rendering first-aid to Lord Curzon in a serious motor accident which we recorded about a year ago. The funeral took place last Thursday at South Ascot Church.

CUNDALL.—The death of Mr. Robert Cundall, chemist and druggist, Pocklington, to which we referred in our last issue (index folio 270), was due to an attack of syncope while cycling, Mr. Cundall falling into the roadway. He was born at Thixendale, Yorks, and had been in business for forty-seven years at Pocklington, where he had a large agricultural trade. Mr. Cundall, who was a Freemason, fulfilled the duties of a Governor of the Pocklington Grammar School for many years, and from 1875 to 1891 acted as manager of the local branch of Beckett & Co., bankers. He was greatly interested in the old Volunteer movement, in which he held the rank of quartermaster-sergeant for a long period. Mr. Cundall leaves a widow,

three sons (one of whom, Mr. T. B. Cundall, is a pharmacist), and a daughter. The funeral took place at Pocklington on August 10, when many residents of the town attended to testify to the popularity of deceased and to show sympathy with his family.

DUKES.—At Vryheid, Natal, on July 11, from bronchitis, after a few days' illness, Olive, the wife of Mr. T. W. Dukes, F.C.S., aged forty-nine.

MARTIN-HOLLOWAY.—At Whitmore Lodge, Sunninghill, on August 10, Lady Martin-Holloway, aged ninety. Lady Martin-Holloway was the widow of Sir George Martin-Holloway, who was one of the legatees of the will of Thomas Holloway, the proprietor of Holloway's pills and ointment. Sir George, who was actively associated with the business, married a sister of Thomas Holloway, and assumed the name of Holloway on the death of his brother-in-law. He received his knighthood from Queen Victoria in 1887, after the opening of the Royal Holloway College at Egham, which was erected in accordance with Thomas Holloway's will, the cost of the buildings and equipment being about a million and a half sterling. Lady Martin-Holloway was a trustee of the college.

STOREY.—At 42 Castle Street East, Oxford Street, London, W., on August 10, Ellen Eugenie, the wife of Mr. Edward H. Storey, Ph.C., aged fifty-six.

WELLBURN.—At East Molesey, on August 11, Mary, the wife of Mr. J. S. Wellburn, chemist and druggist, Bridge Road, East Molesey, aged fifty-five. Mrs. Wellburn was a regular attendant at the social functions of the Thames Valley Pharmacists' Association, and the Association was represented at the funeral, on August 15, by Mr. A. Higgs, J.P., Kingston (Hon. Treasurer); the members also sent a wreath.

WILLS PROVEN.

MR. EDWARD MARSH, Cheapside Chambers, Luton, Beds., pharmaceutical chemist, who died on May 2, left estate of the gross value of 8,358*l.* 12*s.* 7*d.*, of which the net personality has been sworn at 4,693*l.* 4*s.* 2*d.* Among the bequests is one of 100*l.* to Alfred Edward Marsh, chemist, 180 New Bond Street, London, W.

MR. THOMAS MASON, Enderleigh, Alexandra Park, Nottingham, head of the firm of Messrs. Newball & Mason, manufacturing chemists, who died on June 1, left estate of the gross value of 11,531*l.* 12*s.* 3*d.*, of which the net personality has been sworn at 7,208*l.* 6*s.* 9*d.* The testator left the portrait in oils of his late wife to Miss Josephine Plunkett; 200*l.* to his wife's sister, Mary Snowden; all his share and interest in his partnership firm of Newball & Mason and in their business premises to his partner, Benjamin Deaville, charged with the payment by him of 1,000*l.* to the testator's residuary estate. He also left to Nottingham Castle (the Museum and Picture Gallery belonging to the Corporation of Nottingham) his pictures by J. Bibbie, entitled "The Lake in Thoresby Park," "The Chapel at Haddon Hall," and "A Column in Venice." The residue of his property he left to his wife, Mrs. Sarah Jane Mason.

PERSONALITIES.

Notes for this section sent to the Editor should be authenticated and must not be in the nature of advertisements.

MR. FRANK BLISS, of Simla, who has been in the country for a three months' vacation, is leaving London this week and sailing for India from Marseilles on September 1.

MR. H. M. HODGES, general manager of "Oldfield Dispensaries," Ltd., Perak, Federated Malay States, visiting this country in September, and may be addressed c/o of *THE CHEMIST AND DRUGGIST*.

MR. VIRGILE P. PROSSEN (of Messrs. Barker Brothers opium merchants, Smyrna) is now on a business visit to London. He may be addressed c/o Messrs. Paterse Nicolaidi & Co., 4 Bishopsgate, London, E.C.

MR. E. EMRYS EVANS, F.R.H.S., pharmacist, Aberdare, is the chairman of the local horticultural society, who show this year was the most successful in its history. Mr. Evans is also a member of the Council of the Chamber of Trade, and initiated the movement to the National Eisteddfod to be held in the town.

National Insurance Bill.

QUESTIONS IN PARLIAMENT.

On August 14 Sir Henry Kimber asked the Chancellor of the Exchequer whether an approved society will receive any allowance for the expenses of medical examination of persons applying for admission as insured persons; and, if so, whether such an allowance will in addition to the proportion of contributions placed to the credit of such society for management expenses.—The Chancellor replied that an approved society would not receive any allowance expressly for this purpose.

Another question from the same member was as to how an assured person while away from home for change of air, otherwise than in a convalescent home or similar institution, will receive medical benefits.—The Chancellor replied that matters of this kind would be dealt with in the rules of the society, which would, of course, be framed by the society with the consent of its members, and will have to be approved by the Commissioners.

Sir Henry Kimber also asked whether, under Section 13, Sub-section 4, of the National Insurance Bill, an approved society will be allowed to refuse sickness benefit to insured persons suffering from tertiary syphilis which appears twenty or even forty years after infection—e.g., a gumma of cheek appearing after a lapse of forty years, and tabes or locomotor ataxy appearing after a lapse of twenty years.—The Chancellor of the Exchequer replied that this was a matter which might safely be left to the local Health Committee and other organisations responsible for the medical benefit to arrange.

NEW CLAUSES.

The Chancellor of the Exchequer has laid a further batch of amendments to the Bill on the table of the House of Commons in view of the resumption of the debate in committee at the autumn sitting. Among these are the following:

Clause 41 provides for the appointment of the Insurance Commissioners, with a central office in London and such branch offices as the Treasury may think fit. As a concession to the doctors, it is now proposed that:

Of the Commissioners so appointed, one at least shall be a duly qualified medical practitioner who has had personal experience of general practice.

Clause 43 in its present form provides for the constitution of local Health Committees in every county and county borough. In each case the size of the committee is left to the Insurance Commissioners, but in no instance must there be less than nine or more than eighteen members. These numbers are now raised to twelve and twenty-four respectively. One-third are to be appointed by the County Council or County Borough Council, one-third by the approved societies of the locality, and the remaining third by deposit contributors. As to the latter, it is now proposed that:

Two shall be elected in manner provided by regulations made by the Insurance Commissioners, either by an association of the duly qualified medical practitioners resident in the county or county borough, which may have been formed for the purpose under such regulations, or, if no such association has been formed, by such practitioners, and the others, of whom one at least shall be a duly qualified medical practitioner.

The following new clause is also to be inserted:

Where a local medical committee has been formed for any county or county borough, and the Insurance Commissioners are satisfied that such committee is representative of the duly qualified medical practitioners resident in the county or county borough, they shall recognise such committee; and where a local medical committee has been so recognised, it shall, subject to regulations made by the Insurance Commissioners, be consulted by the local Health Committee on all general questions affecting the administration of medical benefit, including the arrangements made with medical practitioners giving attendance and treatment to insured persons, and shall perform such other duties and shall exercise such powers as may be determined by the Insurance Commissioners.

Clause 47 deals with the erection of sanatoria, and the

Chancellor of the Exchequer has drafted this new sub-section:

4. A local Health Committee may, with the consent of the Insurance Commissioners, enter into agreements with any person or authority that, in consideration of such person or authority providing treatment in a sanatorium or other institution as aforesaid for insured persons recommended by the committee for sanatorium treatment as may be agreed, the committee will contribute out of the funds available for sanatorium benefit towards the maintenance of the institution such annual or other payment, and, subject to such conditions and for such period as may be agreed, any such agreement shall be binding on the committee and their successors, and any sums payable by the committee thereunder may be paid by the Insurance Commissioners, and deducted from the sums payable to the committee for the purposes of sanatorium benefit.

AN AUTUMN CAMPAIGN.

The Master of Elibank, M.P., the Chief Ministerial Whip, is credited with the intention of starting another organisation during the forthcoming recess with the view of explaining the admitted complications of the Bill.

WESTMINSTER WISDOM.

The Week in Parliament.

ROYAL COMMISSION ON TRADE DEVELOPMENT.

In the House of Commons on Monday the Chancellor of the Exchequer informed Mr. Page Croft that the Royal Commissioners to inquire into the resources and trade development of the Empire had not yet been appointed, but that the Colonial Secretary was in correspondence with the Dominion Governments in regard thereto.

REGISTRATION OF MONEY-LENDERS.

We are informed that one of the objects of the Bill to amend the Money-lenders Act, of which notice has been given by Mr. H. J. Tennant, M.P. (Parliamentary Secretary to the Board of Trade), is to prohibit the registration of money-lenders under any name implying that they carry on the business of banking or the issue by them of circulars, advertisements, etc., to a like effect.

THE PARLIAMENTARY ADJOURNMENT.

The House of Commons will to-day (Friday) adjourn until October 24, when the second portion of the Session will be devoted to the consideration of the remaining stages of the National Insurance Bill, the Finance Bill, and other matters. The Royal assent to the Parliament Bill is given to-day (Friday). On the Committee stage of the Finance Bill Mr. Glyn-Jones, M.P., will move his new clause relating to the licences to sell spirit and wines for medicinal purposes, which was printed in the *C. & D.*, July 29, p. 154.

OPIMUM AND DRUG CONFERENCE.

We are officially informed—*à propos* the question which is being addressed by Mr. Theo. Taylor, M.P., to the Foreign Secretary in the House of Commons this (Thursday) afternoon suggesting that the International Conference upon opium and kindred drugs may assemble at the Hague on October 16—that no date has yet been fixed for the meeting. In the meantime it is stated that the Indian Government intends to press strongly the cocaine question, when the Conference meets, in view of the fact that the smuggling of that drug into India has assumed serious proportions.

CANCER AND TAR.

On August 9 Mr. Perkins asked the Home Secretary whether, in view of the fact that the spread of cancer among workers with pitch is attributed to the anthracine contained in tar and pitch derived from gasworks, in that tar and pitch derived from blast-furnaces is free from anthracine, he will take this fact into consideration in the new Home Office regulations.

Mr. Churchill replied that the fact that blast-furnace pitch is much less liable to give rise to cancer is already recognised in the draft regulations, which have been issued by the Home Office, for the manufacture of patent fuel (briquettes) with the addition of pitch. Fac-

tories and workshops in which no pitch other than blast-furnace pitch is used are specifically exempted from the regulations. It is not, however, certain that anthracene is the constituent of ordinary pitch to which the prevalence of cancer in the industry is due.

ADHESIVE STAMPS.

In the House of Commons on August 15 the question was raised of the adhesive qualities of the new postage stamps. Mr. Hobbhouse said there had been a justifiable complaint by the public with regard to the adhesive qualities of the new stamps. The contract with Messrs. Harrison was for the printing, gumming, and calendaring of all postage stamps, with the exception of the sixpenny and higher denominations, which are manufactured at Somerset House. Under the terms of the contract Messrs. Harrison were required to use the best gum arabic, which was supposed to be the best adhesive. It is just possible that the defective adhesive properties of which complaint has been made is due to the extreme heat of the last few weeks. Experiments are being continued, and the result will probably be that they would have to alter the material used by the contractors. It is hoped to be able to obtain something which would give the public a better article from the point of view of adhesiveness than is at present obtainable.

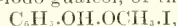
SCIENTIFIC PROGRESS.

Temperatures under this heading are on the Centigrade scale.

Iodocitin is an iodised combination of albumen and lecithin, and is strongly recommended where iodine in organic combination is indicated.

Arsenocerebrin is a mixture or combination of extract of cerebral matter with sodium cacodylate. It is stated to be very efficacious in cases of epilepsy.

Guaïdol, or *para*-iodo-guaïcol, of the formula



is a microcrystalline powder melting at 43°. It is strongly recommended in cases of scrofula, syphilis, and in certain forms of tuberculosis.

Kalmopyrin.—This new remedy is the calcium salt of acetyl-salicylic acid, $(C_6H_4)_2(OCOCH_3)_2(COO)_2Ca$. It is recommended as a better antipyretic than any other salicylic-acid compound, and possesses the advantage of being freely soluble in water. The dose is up to 45 grains per day.

Achibromin is monobrom-isovaleryl-glycol-urea. It forms white prisms melting at 150°-152°, and containing 28.5 per cent. of bromine. It is a powerful sedative and hypnotic. Achiodin is the corresponding iodine preparation, and melts at 150°. It is a useful means of administering organically combined iodine.

Hydromorphine.—Morphine is, according to Oldenberg ("Berichte," 1911, 1829), easily reduced by palladium-hydrogen. The hydrochloride is used for the reaction, and the hydromorphine formed is set free by means of sodium bicarbonate. It crystallises from ethyl or methyl alcohol in colourless needles, melting at 155°-157°, and having the formula $C_{17}H_{21}NO_3 \cdot H_2O$. The hydrochloride forms microscopic prisms, easily soluble in water. Physiological experiments are in progress.

A New Alkaloid.—Lenz ("Arch. Pharm.," 1911, 298) has examined the root of *Derris elliptica*, a leguminous plant growing in Java, from which he has extracted a crystalline alkaloid named derrin. It appears to be a lactone, melts at 158°, and is decidedly poisonous. Its investigation will be continued. Incidentally it may be mentioned that many lactones, as in the present case, which are found naturally in plants, are intensely poisonous to fish. The lactone tephrosin, extracted from the African plant *Tephrosia Vogellii* by Priess, which has the formula $C_{15}H_{22}O_{10}$, will kill fish in a dilution of 1 in 50,000,000.

The Estimation of Cantharidin.—An exhaustive paper on this subject by Kneip, Ney and Reimers appears in the current issue of the "Archiv der Pharmazie" (1911, 259). The whole subject is carefully and accurately reviewed, each process being carefully dealt with, while the solubility tables give a wide field of information in regard to the various solvents used. It is pointed out that the melting-point of cantharidin is 218°, but that the highest melting-point obtained by any of the hitherto published processes is 213°-214°, by Self and Greenish's process. The authors propose the process given below, the accuracy of which has been checked by using a known weight of free cantharidin, together with a known weight of its calcium compound. If

the whole of the cantharidin is to be determined, the powdered drug is to be acidified; if only the free cantharidin, the acidification is to be omitted. Fifteen grams of the finely powdered drug are exhausted in a Soxhlet tube by a mixture of 30 c.c. of petroleum ether and 50 c.c. of benzol, after acidification with 3 c.c. of a 25-per-cent. solution of hydrochloric-acid gas in alcohol. The solvent is completely driven off on the water-bath, and the residue in the flask is treated with 5 c.c. of a mixture of 10 parts of absolute alcohol and 90 parts of petroleum ether. After the greenish fat is completely dissolved the mixture is filtered through a dried and weighed filter, and the crystals remaining on the filter washed with three successive portions of 5 c.c. of the same mixture, the flask being rinsed out each time with the liquid. After the fat is completely removed the filter and flask are weighed, and the increase in weight is practically pure cantharidin, melting at 214°.



Postal Address:

C. & D. INFORMATION DEPARTMENT, 42 Cannon Street, London, E.C.

Telegraphic Address: "CHEMICUS LONDON."

Telephone No.: BANK 852 (two lines).

INFORMATION WANTED.

We would be obliged if any reader would inform us by post-card or telephone who are the makers or agents of the articles mentioned in the following inquiries received since our last issue:

- 130/55. "Photoxylin."
- 131/4. "X.M.A." for eczema.
- 130/51. "Marvel" nit-combs.
- 133/42. "Nellosan": makers.
- 132/39. "Fox's Razors": makers.
- 128/42. Hall's debital olive-oil soap.
- 131/71. "Creasotine," disinfecting fluid.
- 131/70. "Miller's Eucalyptus Oil": agents.
- 129/54. "Whitmore's Liniment of Arnica."
- 129/28. "Floxiene" or "Floxiene" perfume.
- 123/420. Creighton Salt Co.'s "Nauheim Bath-salt."
- 130/56. Herbaline Manufacturing Co.: present address.
- 132/40. Luxurine Co., late of Liverpool: present address.
- 131/46. Panapien & Cie., Paris, makers of "Poudre de Riz": address.

INFORMATION SUPPLIED.

During the past week we have answered inquiries as to where the following articles can be obtained, and in many cases we have given the actual makers. The information will be repeated to any other inquirers who send to this Department a stamped and addressed envelope for the purpose.

- Acidol (125/26).
- Antiferment tablets, makers (128/53).
- Anti-Rheumatic rings, makers (129/51).
- Baird's "Citrodora Oil" (125/26).
- Carbolite of lime, makers (131/4).
- "Cryogenine," makers and agents (132/50).
- Cypridol (126/49).
- Davis's triple-spring arch support, makers (130/63).
- "Ebberzine" veterinary dressing, makers (132/35).
- Electros for chemists' use (126/49).
- "Glycobenphene," makers and agents (128/56).
- Gum euphorbium, suppliers (130/7).
- "Ivory" soap, makers and agents (126/29).
- "Ivy" soap, makers (126/29).
- Laced showcards, makers (128/57).
- Massage instruction (126/26).
- "Nit-Kill" ointment, makers (131/12).
- "Nizin," makers (127/44).
- "Nyt-Kyl" ointment (proprietary) (130/30).
- Red ochre, makers (128/2).
- Savar's "Eclipse" glass feeding-bottles, suppliers (129/29).
- E. Schering, of Berlin, agents (128/48).
- "Sen-Sen," makers (132/48).
- Steedman's powders, makers (128/52).
- Tarragona port-wine (129/32).

WEST AFRICAN KOLA.—The consumption of kola among the natives of French West Africa is steadily increasing. The imports into the various provinces in 1909 (the latest figures available) amounted to 926 tons, valued at 136,434/., and the exports amounted to 39 tons, valued at 3,280/., against 66 tons, valued at 5,480/., in 1908.

OBSERVATIONS & REFLECTIONS.

By Xrayser II.

Your Educational Number

must be my excuse for returning to the well-worn subject of the pharmaceutical Preliminary. I agree with the "scholastic expert" you quote that the number of subjects in this examination is now too great, but I should be sorry to see the modern language omitted. Both geometry and algebra could, in my opinion, be dropped with less loss; and although Latin cannot well be ignored while prescriptions in that language are still current, yet Latin, as taught for the purpose of this examination, itself is, I am convinced, less educative, in the proper sense of that much-abused term, than French or German. They are living languages, and I hold with the proverb "A live dog is better than a dead lion." It is indeed impossible to overrate the advantage which a living interest gives to study; "a submerged and isolated curriculum" (the phrase is borrowed from Mr. H. G. Wells), even when mastered, leaves us much where it found us, with the memory a little strengthened, perhaps, but that is all; and that result is at least equally attainable by the study of a living subject. What is the object of the Preliminary? It is not technical education, but education in a much wider sense; it is to ensure that the future pharmacist shall have sufficient intelligence to use effectively the tools which technical education will place in his hands. Mr. Wells himself, with all his ardour for science, would not deny that an acquaintance with literature and such a knowledge of literary methods as only a study of language combined with wide reading can give are of the first importance to this end; but Greek and Latin are, as he says, no longer "the sole means of initiation to the criticism and partial comprehension of the world"; and we may smile, as he does, at teachers who tell us that it is "impossible to write good English without an illuminating knowledge of the classic tongues, and split an infinitive and fail to button up a sentence in saying so." But, as education in this sense cannot be got by "cramming," the neophyte should not be required to "get up" subjects which are not necessary to it. Neither geometry nor algebra is necessary.

Speaking of "Cramming"

reminds me that Dr. Farquharson, in his reminiscences, recently published under the title "In and Out of Parliament," returns thanks to the examiner who plucked him in chemistry for having thus thrown him into the arms of the "grinder" Wilkinson, who first gave him an insight into the principles of the science. Such praise of the crammer is unusual, perhaps because false shame closes the lips of the men who have been indebted to him. But, says Dr. Farquharson, "although the superior person sneers at such unofficial aids to knowledge, their existence proves the official teaching to be bad, and, therefore, justifies itself—a judgment with which most sensible people will agree. There are, of course, crammers and crammers, but one who has a special aptitude for teaching will grind more knowledge into his pupil in a few weeks than the perfunctory professor will impart in the longest course of dull lectures that ever sent a class to sleep. The crammer cannot afford to be perfunctory. Dr. Farquharson says the teaching in Edinburgh University in his time was not good, but this must be taken with a good deal of reserve, for he gives many names of eminent teachers under whom he studied, and whom he praises highly. Among the professors of those days were "Woody Fibre" Balfour, Simpson (of chloroform fame), the great Syme, Christison, Gooder, and Gairdner, not to mention others, and there were also several excellent teachers in the extra-academical School of Medicine. Dr. Farquharson thinks Simpson

received more than his due share of credit with regard to the introduction of chloroform, that he was one of the strong men who utilise new discoveries rather than one of the great men who make them. Chloroform was discovered by Soubeiran, of Paris, and even its use was recommended to Simpson by Waldie, a Liverpool chemist. Dr. Farquharson has a humorous reference to that "most detestable of all compounds, 'Gregory's Mixture'—at whose author (says he) I once had the satisfaction of shaking my fist as he hung (unfortunately not by the neck) on the walls of Fyvie Castle, complacently placed in a comfortable arm-chair by the magic brush of Raeburn."

Dispensing Bookkeeping,

like chemists' bookkeeping generally, is very much a minus quantity, but, as some of your correspondents hint, we are gradually improving. A D.R.B. (Dispensing Record Book) is used only by a minority of pharmacists. Some such record will be essential if the National Insurance Bill passes into law in its present form, and those who are likely to be placed on the "panel" should be on the look-out for a system that will supply what is required with the minimum expenditure of time and trouble. For this purpose Mr. Dodsley's article and Mr. McKellar's letter are both real helps, and both will repay study. The system I am acquainted with is based on the method described in "The Art of Dispensing." It is one which gives a somewhat more comprehensive record than either of those given by your contributors. For one thing, I consider it is essential that in such a record the actual hour should be stated when the prescription is dispensed. There is, of course, room for improvement in all records, and I hope that the inventive genius or the commonsense faculty of more chemists will be stimulated to produce a specimen ruling that will be useful for setting down those transactions that will certainly require to be recorded for the purposes of the National Insurance Act.

Insects

have played a considerable part in pharmacy, and the brief note your Parisian correspondent sends of M. Bouquet's paper touches only the fringe of the subject. Among the more noticeable medicinal insects are these: Woodlice, which, mixed with wine, were taken as a diuretic, and for asthma, phthisis, palsy, epilepsy, scrofula, jaundice, and other complaints; boiled in oil they were used locally for earache; spiders, which, worn as an amulet without the patient's knowledge, were thought to be good for quartan fevers, their webs are still popularly used to stop bleeding; ants, good for all disorders of the brain, and for paralysis of the limbs, combined with nutmeg they had an excellent report as expellers of wind; bees, not only used externally for the hair, but taken, dried and powdered, as a diuretic; earthworms and snails (which, like leeches, were classed as insects) had many uses, the latter, boiled in milk (a use which still survives), or dried and powdered, were given for coughs and consumptions; the scorpion, bruised and applied, cured the wounds itself had made; the silkworm yielded "a great quantity of spirit and volatile salts, accounted very cordial." All these were at one time or other included in our English dispensaries, along with those which are still officially recognised; and to them might be added a much greater number from abroad, of which a few may be mentioned. The cicada was much in use in France and elsewhere in the eighteenth century for colic and diseases of the bladder; the glowworm was esteemed a remedy for stone in the kidneys; the earwig, infused in oil, was used locally for twitching of the nerves, and, mixed with hare's urine, was dropped into the ears for deafness; the *Ricinus* louse, being taken from the left ear of a dog and worn in a satchet, gave ease to all bodily pains, or so (says my author) it was pretended; and, to conclude a little nearer home, the common body-louse, in doses of five or six and upwards, was prescribed by learned physicians as an aperient and febrifuge, especially in quartans. Perhaps, says a famous *pharmacien*, the difficulty and repugnance with which one swallowed these "vilaines bêtes" contributed to their effect.

"SANITAS POWDER"

v.

SLUGS.

"SANITAS POWDER" rid's Garden Beds of Slugs, and is now being well advertised for that purpose.

Mr. W. P. Wright in "The Garden, Week by Week" says, "The hint I was going to offer about slugs was to scatter 'Sanitas Powder' on the soil amongst the plants. Slugs simply loathe it."

Special Show Cards and Handbills will be sent on application.

The "SANITAS COMPANY" Ltd.
Locksley Street, Limehouse, LONDON, E.

WILCOX, JOZEAU & CO.
49 Haymarket, London, SW
Importers and Exporters of

**FRENCH and all FOREIGN
PROPRIETARY MEDICINES**

Price List on Application
Special • Export • Terms
Foreign • Prescriptions
Dispensed for • Pharmacists

WHEAT DRESSINGS

CARBOLIZED SEED DRESSING, 'FARMERS' FRIEND.'
GROUND VITRIOL (Mixture of Sulphates of Copper & Iron).
Chemists' own Formulæ carefully made up & packed.
GENUINE & AGRICULTURAL SULPHATES OF COPPER.

Bills & Posters supplied Gratis. Write us NOW.
TOMLINSON & HAYWARD, Ltd., LINCOLN.

"MILK OF MAGNESIA"
(Registered Trade Mark)
(PHILLIPS)

For special terms apply to THE CHARLES H. PHILLIPS CHEMICAL CO.,
14 Henrietta Street, Covent Garden, W.C.

JAMES BURROUGH LTD.
D.I. Cate Distillery,
Hutton Road,
LAMBETH,
S.E.

SVR AND METHYLATED SPIRIT

Write for Quotations. at lowest prices.

ART OF DISPENSING. (8th Edition.) 550 pages, 6/-, by Post 6/4
VETERINARY COUNTER PRACTICE. (5th Edition.) 4/-, by Post 4/4
THE CHEMIST-OPTICIAN. 4/-, by Post 4/3.
ELEMENTARY DISPENSING PRACTICE. 3/6, by Post 3/9.
DISEASES AND REMEDIES (New Edition.) 3/-, by Post 3/3.
PRACTICAL METHODS OF URINE ANALYSIS. 2/6, by Post 2/9.
THE CHEMISTS' MEDICAL DICTIONARY. 2/6, by Post 2/8.
GUIDE TO PRELIMINARY EXAMINATIONS. 2/6, by Post 2/9.
MANUAL OF PHARMACEUTICAL TESTING. 2/6, by Post 2/9.
OPENING A PHARMACY. (New Edition.) 2/6, by Post 2/9.

THE CHEMIST AND DRUGGIST, 42 CANNON STREET LONDON, E.C.

FLETCHERS' FOR TINCTURES, INFUSIONS, AND SYRUPS.

CONCENTRATED LIQUORS

Sole Proprietors:
FLETCHER, FLETCHER & CO., Ltd.
London and Sydney.

Editorial Articles.

The Dock Strike.

THE great dock strike, after having paralysed the commercial life of London for practically two weeks, was officially declared to be at an end on Saturday last, the conferences held at the Board of Trade having proved successful. Since then, however, other troubles have arisen which have rendered the situation uncertain, and a recrudescence of the dock trouble has been thought possible. This has occurred through the fact that, although practically all sections of labour have been more or less successful in obtaining increased wages or shorter hours, several minor differences, such as payment for meal-times and the employment of non-union men, have been left outstanding. A feeling of intense irritation has, therefore, arisen among the strikers, and the bulk of them have refused to go back to work on Monday on the terms agreed to by their leaders. On the other hand, the Port of London Authority has declined to hold a conference on the matters in dispute with the strike committee. This was the position on Thursday, when the situation was complicated by a number of grievances. Meanwhile nothing approaching a general resumption of work has taken place at the docks, but the general opinion is that as the strike is "officially" over, things will simmer down and, if no fresh hitch occurs, work at the docks will resume its normal condition in a few days. That there have been a few men at work at the docks and at the private wharves is undoubtedly true, and during the present week, at any rate, deliveries of some of the lighter goods have been slowly filtering through, but owing to the congestion the process has been so slow and uncertain as to be scarcely distinguishable from complete cessation of business. The drug and chemical trades have been comparatively less affected by the strike, perhaps, than any other of the produce trades. With few exceptions, fairly heavy stocks of drugs are carried by dealers all over the country. The employees at the Crutched Friars warehouses, where a large proportion of the supply in first-hands is stored, have never stopped working throughout the strike, and it must be borne in mind that the present is the slackest time of the year in the drug-trade. The fact remains, however, that the export trade has suffered an incalculable loss, practically no goods having left the Port during the strike. On this occasion the trouble has become intensified by the fact that the principal railway centres up and down the country are involved in serious labour disputes, not to mention the great shipping lock-out in Liverpool, where deplorable events have occurred. This fact alone has brought business to a standstill in the North, the railway goods service having been partially suspended, and such is the chaos prevailing in the railway and shipping worlds that all industries have been directly or indirectly affected, and at the time of writing a national railway strike is pending. Whether the strikes will have the effect of permanently injuring the trade of London is a matter for conjecture, but in commercial circles it is believed that the increased wages and port charges will mean a further burden

to shipowners and merchants, the cumulative effects of which will mean an increase in charges which may result in driving away certain classes of business.

The Nutritive Value of Bread.

DR. J. M. HAMILL has made a report to the Local Government Board on the nutritive value of bread made from different varieties of wheat-flour, which follows up the recent report on the bleaching and "improving" of flour, published in abstract in this journal, April 22, index folio 579. The present report also acts as a useful supplement to Dr. Martindale's article on "standard" bread (*C. & D.*, March 4, index folio 321). Dr. Hamill deals (1) with the classes of wheat-flour, (2) the nutritive values of various milling products, (3) the so-called "standard" flour and bread, and then reviews the subject generally. The classes of milling products from which bread may be made are as follows:

(1) *Wholemeal* or "*Graham*" flour is produced by grinding the entire wheat-grain. No sieves or bolting-cloths are employed in its manufacture.

(2) "*Entire*" wheat-flour or *fine meal* is a product obtained by removing a portion of the bran and finely grinding the rest of the grain. "Entire" wheat-flour can also be prepared from wholemeal, obtained by grinding between stones; a portion of the branny particles is removed by sifting, and the resulting product is fine meal or "entire" wheat-flour. It includes so-called "standard" flour. "Entire" wheat-flour contains a portion of the germ, the amount depending upon the degree of fineness to which the flour has been dressed and the amount of offal which has been extracted. "Entire" wheat-flour can be prepared either by stone- or roller-milling. The colour of bread made from an "entire" wheat-flour depends not only on the amount of offal which the flour contains, but upon the milling processes adopted (stone- or roller-milling) and upon the colour of the wheat used (red or white).

(3) *Households* grade of flour is the commercially lower grade of flour obtained from roller-mills. It is darkish in colour, contains a small amount of very fine particles of bran, and, from the baker's point of view, is inferior to high-grade flour for bread-making.

(4) *Patent-grade* flour is the commercially higher-grade flour produced by roller-mills. It has a better colour and is freer from particles of offal than any other grade of flour produced in the mill. It possesses certain qualities specially esteemed by millers and bakers. The water-absorbing capacity of such flour and also the size and general appearance of loaves made from it appeal strongly to bakers.

(5) *Straight-run* or *straight-grade* flour is the whole of the flour produced in the roller-mill. It is intermediate in appearance and baking qualities between households and patent grades.

(6) *Special flours* may be prepared from any of the above varieties of flour, usually with the object of improving their nutritive qualities. They are generally sold under fancy names. Some of these flours contain bran ground to a very fine powder or otherwise treated; others may contain such substances as lentil-flour or banana-meal. An important class of these special flours are the so-called "*germ flours*" in which powdered germ (usually cooked) is incorporated with one or other of the above grades of flour, the resulting product containing considerably more germ than any natural wheat-flour.

A good deal of the report is taken up with a consideration of the nutritive values of flour and bread, and there are dealt with in this section such subjects as the composition of wheat-proteins, the mineral matter, physiological considerations, individual preferences, and the effect of bread on the teeth. In reviewing the whole subject Dr. Hamill states that the differences in nature and in nutritive value between breads made from the different classes of flour do not appear to be of much importance to the average adult with whom bread is only one out of many varied constituents of his dietary. The notion, for example, that ordinary high-grade and naturally white "patent" flour is practically devoid of protein or nitrogenous constituents, whereas the latter are abundantly present in bread made from wholemeal and "entire" wheat-flours, is erroneous.

The differences which exist in this respect are not relatively of great magnitude, and they may, to a large extent, be neutralised by imperfect absorption from the digestive tract. Apart from this, there are commonly wider differences in protein content and energy value between "patent" flours obtained from different wheats, than between the "patent" flour of a given wheat and the corresponding wholemeal. In other words, a "patent" flour obtained from one variety of wheat may contain considerably more total protein, and furnish more available energy than an "entire" wheat or wholemeal flour from another kind of wheat. Relatively marked differences exist between different classes of flour, even when derived from the same wheat, in regard to their total mineral content or those substances which are represented by mineral matter in the ash. To the average adult living on a reasonably liberal and varied diet, however, these differences cannot ordinarily be of importance. At the same time there is no doubt that some people who are accustomed to a mixed diet find, as a result of sufficient trial, that bread of one particular class—from "patent," "entire" wheat, wholemeal, or "germ" flour—suits them, individually, better than another. Suitability in this sense may be the result of the greater or less time required for mastication; the presence or absence of laxative properties; the advantage or the reverse of including in the diet an article which leaves a larger undigested residue; the nature of the other ordinary constituents of the dietary; differences in flavour, or other factors. No general rule can be laid down in such cases. The commercial supply of breads of all these classes serves a useful purpose by enabling a choice to be made. As to what variety of flour is best suited for the diet of those adults whose food consists principally of bread, it should in the first place be noted that a diet which consists principally of bread, from whatever grade of flour it may be made, is unsatisfactory, and that it is more important for those who for one reason or another are in this position, to secure a greater variety of diet—which does not always mean greater cost—than to rely upon the selection of any particular form of bread, however nutritious. This being premised, it may be said that there is no reason to consider that the varieties of bread which the miller and baker have accustomed us to regard as of lower quality—"households," for example—are in any physiological sense inferior to that of the higher-priced bread made from high-grade and specially white flour. On the contrary, from the point of view of available nutrient material and energy value, the advantage is on the side of the "households." "Entire" wheat-flours (including stone-ground flours and "standard" flour) are in nearly the same position as "households," although when made from weak wheats they will usually contain less available protein than "households" made from strong wheats. They possess, however, additional constituents, due to the presence of branny particles and the germ of the wheat, which appear to have a value of their own in nutrition, and may, as a result of further investigation, be shown to comprise phosphorus-containing organic compounds or other substances, the presence of which in some part of the dietary, even in minute quantity, is important in maintaining good health. The latter consideration applies also to wholemeal flour, and to "germ" flours. It is probable, however, that the comparative coarseness of bread made from the former, and its liability to produce digestive disturbances, would influence most people against its habitual adoption as a staple food. This objection does not apply to breads made from "germ" flours, but these are, essentially, proprietary articles, and as their cost is distinctly greater than "household" or "standard" bread, those

who have closely to consider the price of their bread might obtain better value, in respect of nutrition, by applying the difference in cost to the purchase of other food. It is asserted that wholemeal bread and, to a less extent, bread made from flours of the "entire" wheat class are not so liable to aid the production of caries of the teeth, as a result of fermentative changes, as is bread made from a highly refined flour such as patent-grade flour. The evidence on this point, however, cannot be considered conclusive in the absence of more exact experiment. As to the choice of bread for children, the same considerations as to the dominating importance of a varied diet apply. For those, however, who live largely on bread, or bread supplemented only by jam, sugar, or other foods which add little to the available mineral matter, proteins, organically combined phosphorus, or other substances which possibly may be necessary for health, there appears, on the balance, to be advantage in the use of bread made from flour of the "entire" wheat class, or from wholemeal in which the bran is very finely ground. In these flours the presence of the offal, including the germ, secures a somewhat larger quantity of mineral matter and of suitably combined phosphorus or other substances as yet unknown, which may prove to be of importance for reasons above indicated. It should, however, be remembered that many children, whose food consists largely of bread, do not get enough of it, and are really underfed in respect of such essential nutritive substances as proteins and carbohydrates. To increase the quantity of bread taken in such cases may be of greater importance than the substitution of one form of bread for another; to supplement the bread by other articles (such as milk) which contain a material quantity of protein, mineral matter, and organically combined phosphorus will be still more useful.

Linseed-oil Prospects.

THE market for linseed and its product is the subject of considerable uncertainty at the present time, but there is nevertheless a growing impression, even among consumers who some time back were looking for a further sharp break in prices, that a return to a much lower level of values before the end of this year is hardly possible and may be delayed well into next spring. As it is, market conditions are still dominated by the scarcity of seed and the consequent reduced output of oil. A striking feature lately has been the persistent advance in the value of forward oil, the discount on which for contracts over the end of the year has been reduced substantially to barely 17. per ton. Consumers are buying from hand to mouth, but spot delivery in London has been once more raised to over 407. per ton. There was some wavering on the first official report of the American crop, giving the cultivated area as 3.2 per cent. larger than the first estimate of last year and 9 per cent. in excess of the area harvested. According to that report, giving the condition on July 1 as 80.9, against 55.0 and 95.1 respectively in the two previous years, the prospective yield was estimated at 26½ million bushels, compared with an actual outturn of 14,116,000 bushels last year and 25,856,000 bushels two years ago; but according to the second official report the condition of the crop has, as expected, further deteriorated from 80.9 to 71.0 on August 1, on the basis of which the yield is now placed at only 23 million bushels, or 3½ millions less than on July 1. Even the latter estimate is not unlikely to be further reduced, as prospects have, it is generally inferred, been impaired by the prevalence of hot and dry weather since the date of the last Government report. With hardly any

exception official estimates have been reduced in former years until the final forecast on September 1. On July 1 last year, indications were for a crop of 21,000,000 bushels, but the final result, through the prolonged drought, turned out to be about 33 per cent. less. The official report to be issued of the state of the crop on September 1 will be of great interest, as it should afford a more definite indication of the prospective yield. It is to be hoped that the disastrous results of the previous season will not be repeated, but this depends largely on weather conditions during the next few weeks. Meanwhile the latest official advices as to the Canadian crop are very satisfactory, a crop yield of about 160,000 tons being looked for, against only 75,000 tons last year, although private estimates place it at 200,000 tons. There has been a fair increase in this year's world's shipments to Europe from India and Russia, but, in view of the further large shortage from the Argentine, the aggregate since January 1 to August 10 shows a deficit of about 683,000 quarters against 1910 and 2,007,000 quarters against 1909.

With reference to the prospective good surplus of the forthcoming Canadian crop, due to an increase of nearly 300,000 acres in the cultivated area over last year, to 743,300 acres, it is now considered very doubtful whether Europe will secure much of the increased output. With the eventual acceptance by Canada of the Reciprocity Bill already passed by the United States, it is quite likely that at least the greater part of the Canadian exportable surplus will be absorbed by American crushers. It is well to bear in mind that on the basis of the condition of the American crop on August 1 its yield would only be about 23,000,000 bushels, whereas it is estimated that American trade requirements should run into at least 24,000,000 bushels, while it is expected by certain authorities that even more will be needed in order to establish reserves in the crushing industry, where they have long since been exhausted. These considerations have made for a renewed sharp advance in the price of linseed in North America, whereas River Plate and Indian shippers have adopted a more cautious attitude. Supplies of the last crop from the two latter countries may possibly be accelerated on any sharp advances, but so far as can be gauged the shipments over the remainder of this year promise to be light, while prospects in North Russia leave much to be desired. The preliminary official estimate of the Argentine crop is favourable, the yield being estimated at 1,220,000 tons, which is more than double that of last year, although the acreage is but little larger, which tends to show how severely the crop suffered last season through drought and frost. No reliance, however, can be placed upon the River Plate crop for months to come.

The New Medicine Stamp.

Contrary to expectations, the new patent-medicine stamp, just issued, does not differ very much from its predecessor. The emphasising of the fact that the stamp does not carry with it a Government guarantee of the product it is placed upon consists chiefly of the words "No Government Guarantee," replacing "This Stamp implies no Government Guarantee," in the central circular portion of the stamp, in which the words "Price not exceeding 1/-" also appear instead of "Inland Revenue." The left- and right-hand panels, which in the old stamp contained the notification "Value 1s. and under," now respectively contain the inscriptions "Medicine Stamp Duty" and "This Stamp must be affixed so that it is destroyed in removing contents of inclosure." The stamps are in perforated sheets one stamp wide.

The Census Report.

The Preliminary report of the Census of England and Wales, 1911, has been issued recently, so that we are able to arrive at fairly accurate figures of the population of the United Kingdom. The enumerated population of the United Kingdom on April 2 of this year is shown to be as follows: England, 34,043,076; Wales, 2,032,193; Scotland, 4,759,445; Ireland, 4,381,951; or a total of 45,216,665. The population of England and Wales has increased from 32,527,843 to 36,075,269, or a percentage increase of 10.9, which is lower than the last two decennial periods—11.65 and 12.17 respectively. The population of Ireland has decreased, but there is some satisfaction in noting that the decrease is proportionally the lowest since 1851. Many interesting facts can be adduced by a study of the report. It is shown, for instance, that the net gain of births over deaths is slightly higher than at the last census, a result due to a large reduction in the death-rate, and not to an increase in the birth-rate, the latter showing considerable reduction. The proportion of females to males—1,068 to 1,000—is the same as at the previous census, but this may not be quite accurate, as when the census of 1901 was taken a large number of men were absent on military service in South Africa. The "British Medical Journal" points out that the decrease in the birth-rate is of serious importance, and that the decrease is not equally distributed among the different classes.

Cremules. [Cremulae.]

Sir James Sawyer, of Birmingham, who has reintroduced or invented many forms of medicamentation, advocates in "The Lancet" the employment of chocolate cream as a lozenge basis. He supports his recommendation by showing that the official fruit basis, simple basis, rose basis, and tolu basis are insufficient for the growing requirements of the modern laryngoscopist, and he recalls in a pleasing manner the scant recognition of lozenges by Dr. Paris and the Pharmacopœias of the eighteenth century. This is what Sir James writes regarding the practical side of the question—the one which will most interest our readers:

I desire to draw attention to a new vehicle which I have found useful in practice—namely, the "chocolate cream." As we know, chocolate is made by triturating in a heated mortar the roasted seeds of the *Theobroma Cacao*, freed from their husks, with an equal quantity of sugar (saccharose), and making the mixture into a paste with water, having flavoured it variously, as with vanilla or with cinnamon; and the "cream" is made by filling a small globular envelope of this mixture with a small portion of milk which has been mixed with sugar and evaporated by the aid of fire to a pasty consistency. It is this latter paste which should be medicated from our prescriptions by the pharmacist. Some skilful members of the craft have succeeded well in carrying out my own wishes to such purpose. Such medicated trochiscus we may prescribe, for example, thus:

Menthol	...	...	...	gr. $\frac{1}{10}$
Ol. eucalypt.	...	...	...	℥ $\frac{1}{2}$
Pastæ lactis,				
Pastæ nuclei cacao	...	...	aa.	q.s.

Fiat trochiscus, sec. artem.

Or the pasta lactis in each trochiscus may be medicated by the addition to it of a grain or two of borax, or half a grain of sulphate of zinc, or a minim of oil of turpentine or of oil of capnut, or half a minim of oil of anise.

Finally, suggestions are made that these trochisci be called cremules, Latinised as cremulæ, and that when quickness of preparation is to be wished for unmedicated ones can be medicated readily by remedies which are liquid in their form, by injecting a minim or so of the medicament into the centre of a "simple" cremule, by the aid of a hypodermic syringe.

The Wasp Season.

In many parts of England there is a plague of wasps, and much inconvenience has been caused by the insects

swarming into houses and becoming a danger to those who interfere with them. Incidentally the pest has caused a demand for remedies for the stings and for chemical destroyers of the wasp. For stings the best application is liquid ammonia applied at once, but a more convenient substance to carry about is sodium bicarbonate, a little of which moistened with water is placed on the part that has been stung. Others recommend glycerin of carbolic acid, but the alkaline treatment is generally found to be the most efficient. Another problem is presented by requests for chemicals wherewith to extirpate the wasps' nests. Potassium cyanide is most employed, and is without doubt the best remedy. It is used either in the solid state or in solution. The fused cakes of potassium cyanide are broken up into pieces of about 1 drachm weight, and one or more of these is placed in the mouth of the wasps' nest at night and covered over with a clod of earth. The fumes of the potassium cyanide percolate into the nest and destroy all the wasps therein. If the solution is preferred, it should be sold of the strength of from 1 to 2 oz. in a pint of water. It is employed by saturating pledgets of cotton-wool with the solution and placing these in the nests in the same manner as with the solid potassium cyanide. It is as well to be liberal in the amount of poison that is placed in each of the nests, so as to ensure the deadly effect required. An older method of destroying the nests is by means of gunpowder-squibs, but there is no doubt that practical men soon find the potassium cyanide method preferable. Where there is an objection to supplying this poison, a very good way is to place carbon bisulphide on a large piece of cotton-wool and cover the entrance to the nest. The vapour descends and permeates all parts of the nest with deadly effect. The vapour may even be fired the next day. There is, of course, some risk in approaching wasps' nests, but it is usual to locate the nests during the day, marking the spot by means of a stick, and carry out destructive operations during the night when the wasps are quiescent. When the nests are dug out destruction of the maggots is sometimes ensured by mixing the mass with paraffin and applying a light.

Hospital Reform.

Mr. Neville Chamberlain, of Birmingham, who tried some years ago to organise a system of consultants in his native city and failed owing to medical opposition, gave his views on the reform of out-patients' departments of hospitals before the British Medical Association. He outlined an ideal system of medical relief as follows:

1. Every person should contribute towards the cost of treatment.
2. Every person should be attended in the first instance by his own doctor, but should have power to change his doctor at intervals.
3. Drugs should not be dispensed by a doctor, but by a chemist or dispensary.
4. Patients requiring institutional treatment should be admitted to the hospital as in-patients, or should obtain consultation or treatment on the recommendation of any qualified medical man without the necessity for subscribers' letters, etc.
5. Paying wards should be established for those in better circumstances.

Mr. Chamberlain acknowledged that the aspect of the question has been changed by the introduction of the National Insurance Bill, but chemists will be interested in Item 3 of the system outlined above. He is another witness as to the undesirability of the prescriber being unchecked in the drugs he requires for a patient.

REGULATING NEW REMEDIES.—The Japanese Minister of the Interior is about to issue a new ordinance for regulating the importation and sale of new remedies and preparations. [Corrected.]

The Administration of the Pharmaceutical Benefits.

A contributor who has had exceptional opportunities of making himself acquainted with the administration of the medical and pharmaceutical benefits under the German Insurance Scheme offers some suggestions for carrying out the work required by the British scheme.

THE Chancellor of the Exchequer's assurance, given at the introduction of the National Insurance Bill, has received the approval of the House of Commons, and pharmacists will be called upon to play an important rôle in the administration of one of the forms of medical benefits to be provided by that measure. The details and principles upon which this participation is to be based when applied in practice are still an open question, and it behoves pharmacists to carefully consider all the aspects of the new situation about to be created, in order to formulate definite proposals for discussion when the time comes for providing the machinery to carry this part of the Bill into effect. The pharmacist ought to profit by the experience gained by his Continental colleagues, and a careful consideration of the conditions abroad, with a true appreciation of the circumstances prevailing at home, will enable him to prevent and exclude from the beginning many of the features that mar the practical application of this form of benefit in other countries. It must not be forgotten that the separation of prescribing and dispensing in the case of so large a section of the population represents a very far-reaching innovation, all the more so as almost all the fundamental principles upon which it was an easy matter to base a scheme of this nature in other countries are absent here, and will have to be created to suit the altered conditions.

CONTRACT OR TARIFF SYSTEM.

The first and foremost consideration is the provision of a basis for dispensing done on behalf of the insured. The points involved were set forth in *THE CHEMIST AND DRUGGIST*, May 27, index folio 785. To introduce the contract system of payment would be to defeat the object of the scheme, which is to give the doctor freedom in prescribing; in addition to being opposed to the principle of proportional payment for the actual services rendered, it can only be termed a speculation which is bound to be unfair to one of the parties concerned. It therefore remains to frame a national dispensing tariff, regulating all charges arising from the provision of medicines to the insured. This task should be entrusted to a reference committee including a fair representation of pharmacists and working in conjunction with the Insurance Commissioners. This tariff would be subject to annual revision, and would be binding on all concerned. This is an important point, for the existing Continental tariffs are designed to be applied to all prescriptions, and the claims raised by the sick-clubs for special rebates on these charges are a very fruitful source of friction between the clubs, doctors, and pharmacists. As this tariff would apply only to dispensing for the insured, its whole provisions can be adapted to suit the requirements of the case.

BASIS FOR A TARIFF.

Continental tariffs are complicated owing to an undue attention to details, such as graduated charges for different quantities of the same drug, and the more or less intricate calculations often required in order to arrive at the exact charge for a certain amount. The different charges provided for the various manipulations entailed in compounding a prescription are also a source of much complication. The British currency does not lend itself to this system, as the smallest business unit must necessarily be the halfpenny, whereas the division of the unit into one hundred parts, as in Germany, makes it possible to apply subtle differences.

The suggestion advanced in the above-mentioned article of providing a statutory minimum charge for a given quantity of each drug is an excellent one, and should be adopted, as it will greatly simplify matters, but

it would be better to base the charge for each drug on its cost-price. This is fairer than classing the drugs into groups, and in the end is no more complicated. Taking the cost-price of a pound, ounce, or grain, as the case may be, the charge would be obtained on the following basis:

Drugs costing under 20s. per lb. to be charged double cost-price.

Costing 20s. to 100s. per lb. to be charged cost-price plus 50 per cent.

Costing over 100s. per lb. to be charged cost-price plus 33½ per cent.

In the case of scheduled poisons, or galenicals containing the same, the sale-price would always amount to double the cost-price. This is in view of the extra care involved. A compensation of this nature is recognised abroad.

Compared with the German basis, the above charges would be *de facto* lower. There the charges are as follows: Cost-price per pound under 15s., sale-price double; between 15s. and 20s., sale-price uniformly 30s.; if over 20s., 50 per cent. is added; the charges for subdivisions (*i.e.*, for 100, 10, 1, 0.1, 0.01 gram) are obtained by dividing the charge for the foregoing unit by eight. This provision, for the sake of simplicity, could not be applied in England, so that smaller quantities would not be proportionately dearer.

When the charge for the pound, ounce, or grain is obtained, the amount corresponding to the unit of ½d. would be calculated, and the latter would form the basis of the charge to be made. For instance, the charge of ½d. would correspond to 3ss. of sodium bicarbonate, 15 grains of bismuth subnitrate, 15 grains of potassium iodide, 40 grains of phenacetin, or 1 grain of morphine hydrochloride. Thus all charges would be based upon these two units; for instance, any amount between 15 and 30 grains of bismuth subnitrate would be charged 1d.

THE DISPENSING CHARGE.

The question of a fixed dispensing charge has now to be considered. The provision of distinct charges for different manipulations necessarily results in pressure being exerted upon the doctor to avoid the use of "expensive" forms of prescribing, and as far as possible to restrict himself to simple solutions, or to prescribing powders in bulk instead of in the form of divided powders, pills, or cachets, and to avoid the use of infusions. This is neither in the interests of the patient nor of the pharmacist; and therefore any form of charge doing away with such considerations, while representing an adequate remuneration, would be welcome. In many cases—*viz.*, with cheap drugs—the charges for manipulations often come to considerably more than the cost of the ingredients. Therefore, instead of making provision for distinct dispensing charges, the suggestion might be submitted that when the pharmacist makes up his monthly account for prescriptions, after adding up the total formed by the amount for each prescription, a uniform charge to cover this item should be added, amounting to, say, 50 per cent. It is generally assumed that the dispensing charges in Germany average more than 50 per cent. of the cost of each prescription; so that, taking into consideration the rebate which has to be granted on the grand total, it may be assumed that the suggested charges would still prove well within the limits of the expenditure for medicines in Germany. A scale of charges for the containers, on the lines suggested in the *C. & D.* article, would complete the national dispensing tariff.

THE SUPPLY OF SIMPLE REMEDIES.

There still remains to be considered the tariff for simple remedies and articles not falling within the category of prescriptions requiring special manipulations, such as boric-acid ointment, Bland's pills, castor oil, cod-liver oil, mustard-plasters, etc. A list of such preparations could be drawn up, and charges fixed for certain quantities, the charge to include the container, and to apply whether the prescriber indicates that it should be labelled with the name of the container, or bear some general indication designed to prevent the patient from knowing the nature of the remedy supplied. Further, a provision should be inserted that when packed specialties are prescribed, the

minimum rates fixed by the P.A.T.A. should apply, or, failing these, an advance of, say, 15 per cent. on the cost price. In Germany specialities are sold at an increase of 60 per cent., and the sick-clubs now are content to demand an advance of 50 per cent. If bulk has to be broken, then the cost-price is doubled, and this serves as the basis for calculating the charge for the amount required.

ADMINISTRATIVE DETAILS.

It still remains to deal with the important administrative details. The following provisions may be submitted as complementary to Clause 14 (2) :

Checking Competition.—Pharmacists desirous of undertaking the supply of medicines to the insured shall make application to the local Health Committee, which will publish a list of such pharmacies. The insured shall be informed of the pharmacies in their district at which prescriptions may be presented for dispensing. Where there are two or more pharmacies in one district available for this purpose, it shall be unlawful for any one business to arrange for special facilities of a nature likely to prove detrimental to the interests of the other pharmacies; this applies particularly to the establishment of arrangements whereby one business is permitted to collect prescriptions at the place of occupation of the insured, or at the doctor's consulting-room, unless such arrangement receives the sanction of the other participating pharmacists. It shall be unlawful for any one pharmacist to hold out special inducements to the insured, or other persons interested, with the object of obtaining a greater share of business to the detriment of his competitors, or to enter into any arrangement having the same object with a sick-club doctor. Penalty for any such offence to be the withdrawal of his right to supply medicines for a period of one year. In deciding cases of this kind the local Health Committee should be reinforced by a proportionate number of non-interested pharmacists.

Repeating Prescriptions.—No prescription shall be repeated except with the written sanction of a sick-club doctor; otherwise such repetitions shall be paid for by the insured himself.

Night-work.—In the case of prescriptions presented for dispensing between the hours of 9 P.M. and 7 A.M. an extra charge of 3d. shall be levied, regardless of the nature of the prescription. This charge is to be levied upon each individual prescription. It shall be lawful, however, in places provided with several pharmacies supplying medicines to the insured, for the owners to enter into an arrangement whereby one or more undertakes, in rotation or otherwise, to compound prescriptions during the night-time; this shall also apply to prescription-work on Sundays and holidays. In this case the insured are to be informed of the available pharmacies (preferably printed on the back of the prescription blanks issued to the club-doctors).

The Containers.—If a medicine is repeated, the patient shall bring with him the container, which is not to be charged for if fit for use; unless the doctor, by some sign to be agreed upon, informs the pharmacist of the existence of an infectious disease. The pharmacist shall not be required to take back and refund money for any containers supplied to insured persons.

Payments.—All bills for the supply of medicines shall be rendered monthly, and payment made in the following month, otherwise interest shall be allowed on the outstanding amount. The cost of each prescription shall be indicated on the document itself, and the bill made out on forms supplied to the pharmacists. These shall be so designed as to minimise the clerical work entailed.

UNUSUAL DOSES.

The increase in prescribing involved by the National Insurance Scheme calls for the creation of certain safeguards. There is the difficulty which the dispenser has to face when a prescription calls for unusually large doses of potent drugs. In most other countries special provisions are made for this contingency, and it will be necessary to provide similar safeguards in Great Britain. The fact that a new edition of the British Pharmacopœia is in the course of preparation offers a favourable opportunity of attaining this object by the inclusion of a table of maximum doses of potent drugs, on the lines adopted by Continental Pharmacopœias. If the prescriber wishes to administer a larger dose than the amount stated in this table, he should be required to denote that he is fully aware of the fact by underlining the name of the preparation. The addition of an !—the form generally adopted on the Continent and in Japan—is likely to lead to errors in view of the British system of measures. The course proposed would be by no means derogatory to the dignity

of the physician, but it would relieve to a great extent the responsibility of the dispenser, who is not in a position to appreciate the motives which dictate the necessity of administering an unduly large dose. In the absence of any indication of this kind, the dispenser should be empowered to communicate with the doctor, or if this is at the time not possible, to reduce the dose to the maximum amount stated in the table, and at the same time take the necessary steps to inform the prescriber of this fact.

The Progress of Perk.

Artist and Rhymers join to show how a pharmacist has evolved.

III.

AH, YOUTH! your gay ebullience seldom heeds
The claims of Future (sooth, and that were well);
Your gaze is forward—pestle, mortar, stand
The emblem of all greatness unto you.
That eke were well—ay, best of all they should
Remain the steadfast emblems of your Craft
Throughout the Ages. There's some subtle chord
Reverberating in the pestle's clang
That links us in fraternal harmony.



Go forth, bold Perk (the fitless apron donned),
And pound the pliant pill-mass *quantum suff.*,
Taste all the jububes, sniff the ammon. fort.,
Slide down the cellar-stairs, and raise old Cain;
For this we've done since e'er the World began.
And though the "Aqua" that you see is not
Produced by direct synthesis, as once
You ventured in your earlier life to prove
To unresponsive Parent; still you'll find
That it holds a not unimportant place
In your diurnal Scheme of Things, and thus
Is not to be despised. There too are prints
It were not well to treat with dire neglect.
We'd urge communion with some Roman books
On war; for "Deeds of Deadwood Dick"
May stir the blood, but find no favour with
A coldly classical Examiner.

JAPANESE WATERS.—The Minister of the Interior has ordered an investigation of the constituents of the mineral springs in Japan.

"DISEASES AND REMEDIES."—The fourth edition of this useful book for chemists has recently been published by the C. & D. It is a concise survey of the most modern methods of medicine, telling the nature of ailments and describing the methods of treatment. The fourth edition has been carefully revised by a general medical practitioner, and certain parts of the book have been entirely rewritten. It is published at 3s. (by post 3s. 3d.), and can be obtained from the C. & D. offices in London or Australia and from the wholesale and sundries houses.

REVIEWS.

Modern Industrial Chemistry. From the German of H. BLÜCHER, Translated by J. P. MILLINGTON, M.A. Cantab., B.Sc. Wales. 9½ in. by 5½ in. Pp. 779. 30s. net. (London, 1911: The Gresham Publishing Co., 34 and 35 Southampton Street, W.C.)

It is somewhat difficult to describe the contents of this book of 780 pages. It deals in the main with the products of chemical industry—an inclusive and far-reaching term. The book resembles more than anything a condensed edition of Thorpe's "Dictionary of Applied Chemistry," but it differs from that work in many ways. For example, the book under review mentions a large number of "new remedies" and branded specialties, many of them of but little importance in this country, while the manufacturing processes are as a rule only described in the barest outline. The subjects dealt with are arranged alphabetically, and to give an idea of the scope of the work we open it at page 448. On this and the succeeding page the following are mentioned: *Narcotine*; *narcyl*; *natural dyestuffs*; *negro powder*; *neodymium*; *Nernst lamps*; *nerol*; *nerolin*; *neurodine*; *neuronal*; *neurotropine*; *new red process*; *nickel*. The words in italics are merely references to another part of the book, but the quoted titles suffice for the purpose in view. When this number of titles is multiplied by the number of pages one gets a glimpse of the large number of subjects referred to in the work. It is this variety which makes the book a useful one for those in the drug-trade, the information given on a chemical process or about a new remedy being generally sufficient to satisfy an inquiring customer or medical man. A good deal of prominence is given to patent literature, and, as is to be expected from the origin of the work, the specifications referred to are mostly German. We must confess that in looking through the book we have frequently encountered substances which are new to us, and are not referred to in the usual reference-books, so that we anticipate being users of the work when hard pushed for some unusual information. The book is handsomely bound in half leather.

Brazil: Its Natural Riches and Industries. Vol. I. Pp. 384. 11 in. by 7½ in. (Paris: Aillaud et Cie.)

Five years ago the Brazilian Minister of Industry requested the Centro Industrial do Brazil (Industrial Centre of Brazil) to undertake the task of writing a work, with the co-operation of expert collaborators, on the industrial progress and economic expansion of Brazil, and the result is that a very comprehensive work in two volumes has been published by the Government. The volumes, which contain almost one thousand pages, are quite an *édition de luxe*, being copiously and well illustrated. The work first appeared in Portuguese and French, and is now followed by an English edition, the first volume of which is ready for distribution. The bulk of the work has been done by Dr. L. R. Vieira Souto, the Director of the Commission of Economics of Brazil, which has established headquarters in Paris, London, Berlin, Rome, and other capitals. First an historical review is given in detail, followed by geographical information, international commerce and finance, all these subjects being treated in a lucid and interesting manner, which gives one an adequate idea of the phenomenal rapidity of the political and industrial development of this most remarkable country, covering an area almost as large as Europe. The productive industry of Brazil is dealt with in three sections: (1) vegetable, (2) animal, (3) mineral. The first covers all wild rubbers, coffee, medicinal plants, gums, resins, essential oils, fibres, and many other products. Eight pages are devoted to medicinal plants, but the work does not pretend to make a complete study of the flora. It tells us nothing new about ipecacuanha or its collection, while the figures record that the production in 1908 was 24,065 kilos. against 30,632 kilos. in 1907. During the past eight years there has been a perceptible decline in ipecacuanha in Brazil, owing to the rise in the rate of exchange. Guarana, jaborandi, and araroba are practically the only other crude drugs we obtain from Brazil, but the interior consumption of many other native medicines is very large. Brazilian tea or

maté, which is of course quite unknown in Europe, is fully described. The State of Paraná is the great seat of exportation for this drug, and in 1908 no less than 55,315 tons, valued at 1,648,625*l.*, was exported. Altogether there is much of interest in the book to British merchants and manufacturers, who may on application obtain a gratuitous copy of the first volume in English from the Brazilian Consul in London or the Mission Brésilienne d'Expansion Economique, 28 Boulevard des Italiens, Paris. At the present time Brazil exports are mainly limited to rubber and coffee, and the endeavour is to maintain an effective propaganda so that new markets may be found.

NEW BOOKS.

Any of these books printed in the United Kingdom can be supplied, at the published price, to "C. & D." subscribers on application (with remittance) to the Publisher, 42 Cannon Street, London, E.C. These notes do not exclude subsequent reviews.

International Homœopathic Medical Directory. Edited by Dr. J. Roberson Day and Dr. E. Petrie Hoyle. 9½ x 6½. Pp. 238. 4s. net. (Homœopathic Publishing Co., 12 Warwick Lane, London, E.C.) [The first of a new enlarged series of the Directory, which now becomes quite an imposing volume. It contains the names of the homœopathic doctors and chemists in Europe, North, Central, and South America, Australasia, Asia, and Africa classified under the name of the country. The practitioners of Great Britain and Ireland have appended to their names information regarding their professional career. The names are given of seventy-three firms of homœopathic chemists. The book contains a number of whole-page illustrations of homœopathic hospitals, and in the commencement is an international message from Dr. Arndt regarding the principles of the propaganda for homœopathy.]

Jago, W. and W. C. *The Technology of Breadmaking, including the Chemistry and Analytical and Practical Testing of Wheat, Flour, and other Materials employed in Bread-making and Confectionery.* 9½ x 6½. Pp. 908. 21s. net. (Simpkin, Marshall & Co., Ltd.) [The third edition of Mr. Jago's treatise, which first appeared in 1895. It has been revised and brought up to date, the author being assisted by his son, Mr. W. C. Jago, who has specialised in the application of chemical methods in the factory. There are new chapters covering recent work on breadmaking.]

Matriculation Directory No. 58, June 1911, with Articles on Text-books. 7 x 4½. Pp. 152. 1s. net. (University Correspondence College, Red Lion Square, London, W.C.) [This gives the papers set at the June Matriculation examination of the London University, with model answers. Advice is given regarding the books that will be found useful to candidates, and particulars are appended of the courses of instruction obtainable at the University Correspondence College.]

Melville-Davison, W. *Some New and Interesting Points in Ships' Hygiene.* 8½ x 5½. Pp. 37. 4s. net. (Wright, Bristol.) [Treats in an interesting manner on such subjects as filters, mosquito-screening, rats, bugs, cockroaches, and disinfection. The author has discovered that some rats are very resistant to rat-virus, but in some cases good results have been obtained in ridding ships of the pest. For bugs the remedy is solution "D," a preparation which "consists of certain synthetic derivatives of coal-tar in combination with volatile and mineral oils," a description which is calculated to exasperate those who purchase the book and expect to find the remedies clearly indicated. Borax is the remedy extolled for killing cockroaches, but here the author refers to an improved powder without stating its composition.]

Poulenc, C. *Les Nouveautés Chimiques pour 1911.* 8 x 5½. Pp. 354. 178 illustrations. 4*l.* (Baillière, 19 Rue Haute-feuille, Paris.) [Deals with the new pieces of chemical apparatus introduced during 1911 on the plan of previous issues—i.e., classified under physical, chemical, electrical, analytical, and bacteriological apparatus. The author is very enthusiastic as to the progress made in the manufacture of silica apparatus, and wishes the industry "long life and prosperity."]

Wellcome Physiological Research Laboratories.—The following reprints of communications to scientific societies have been published: *Chart Presentation of Recent Work on Indicators*; (35) *The Action of Tetrahydro-Papaveroline Hydrochloride*; (36) *Chemical Structure and Sympathomimetic Action of Amines*; (37) *The Fate of Para-Hydroxy-Phenyl-ethylamine in the Organism*; (38) *A Reversed Action of the Vagus of the Mammalian Heart*; (39) *Some Phenolic Derivatives of β-Phenylethylamine*.

Practical Notes and Formulae.

Deterioration of some Standard Pharmaceuticals.

MR. H. E. BARNARD, chemist to the Indiana State Board of Health, has published the results of an investigation into the rate of deterioration of tincture of iodine, spirit of camphor, ammonia, and lime-water when stored under various conditions. He found that of these preparations 65.7 per cent. of the iodine tinctures (330), 26.1 per cent. of spirit of camphor (226), and 52.5 per cent. of lime-water (236) were below the U.S.P. requirements. The figures in parentheses give the total of samples examined. An analysis of many hundreds of replies asking the retailer the reason why he violated the law offered no solution to the problem. Many dealers used old formulae, others laid the blame upon the wholesaler, while but few admitted carelessness in preparation or storage; but the most general explanation the druggist offered was that the preparations had deteriorated in storage since they were made. To test the last-named suggestion quantities of the preparations were made according to the U.S.P. directions and divided into five portions, which were stored as follows: Three portions in glass-stoppered bottles (1) covered with black paper; (2) without protection from light; (3) exposed to direct sunlight. The fourth portion was kept in a corked bottle, while the remaining portion was kept in an unstoppered bottle. In the case of lime-water, a sixth sample was kept in an unstoppered bottle with an excess of lime, the other specimens being of filtered lime-water. But little change occurred in the preparations stored in closed bottles, and in the table given below, which is collated from Mr. Barnard's figures, they are grouped together, but the lowest figures of the group for ammonia and lime-water are from storage in corked bottles.

Period (in weeks)		0	2	4	8	12	16	26
Aqua ammoniac ...	{ C. O.	111.7 —	111.7 74	110-111 47	107-111 20	104-110 8	100-110 4	94-108 —
Liq. calcis ...	{ C. E. C. F. O. F.	113.6 112.6 112.6	110 112.6 97	107 108-112 68	107 103-103 12	106 98-104 nil	106 94-101 —	— — —
Spt. camphoræ ...	{ C. O.	98.3 98.3	98.3 103	98.3 106	98.3 119	98.3 134	98.3 158	98.3 233
Tr. iodi ...	{ C. O.	101.2 101.2	101.2 105	101.2 108	101.2 121	102.2 136	102.2 148	102.2 260

Figures represent the percentages of U.S.P. strengths.

C = Bottle closed, O = Bottle open, E = Excess of lime, F = Filtered lime-water.

The figures show that with careless storing ammonia and lime-water rapidly deteriorate in strength, while in spirit of camphor and tincture of iodine the proportion of the active ingredient increases, owing to evaporation of alcohol, so that while the contention given above may hold good with ammonia-solution and lime-water, in cases of low contents of iodine and camphor some explanation other than that of careless storage will have to be looked for.

Magma Magnesia.

MR. S. L. HILTON, before the Washington branch of the American Pharmaceutical Association, proposed the following revised formula for magma magnesia:

Magnesium sulphate ...	350.00 grams
Sodium hydroxide ...	119.00 grams
Gelatin ...	0.15 gram
Distilled water to make ...	1,000.00 c.c.

Dissolve the magnesium sulphate in 400 c.c. of distilled water, filter the solution through paper, dissolve the gelatin in 50 c.c. of hot water, and add this solution to the solution of magnesium sulphate, and then wash the filter with several portions of distilled water, using in all not

more than 250 c.c. Dissolve the sodium hydroxide in 400 c.c. of distilled water, and when the solution has cooled, add 300 c.c. of distilled water, mix thoroughly, and when both solutions have cooled to the room temperature, add the solution of sodium hydroxide to the solution of magnesium sulphate by some means that will deliver the solution of sodium hydroxide in rapid drops. Stir the magnesium-sulphate solution briskly until all of the soda solution is added, then dilute with distilled water to make the mixture measure 3,000 c.c. Let stand until the precipitate has settled to the 1,000 c.c. mark on the container, syphon off the supernatant liquid, and add 2,500 c.c. of distilled water; repeat twice, the last time diluting the magma with distilled water until it measures 4,000 c.c.; stir well and set aside to settle to the 1,000 c.c. mark; draw off the clear liquid; mix the magma well and assay, and dilute if necessary, so that the preparation will contain 7.5 per cent. magnesium hydroxide. An assay process was given in the paper.

Resosalyl.

A NEW ANTISEPTIC is described by Monteil under this name in "Nouveaux Remèdes." It is a liquid, and stated to be superior to phenosalyl or camphorated salol. The product is soluble, without odour, and non-caustic. It can be employed in gargles, lotions, injections, and as a wound dressing. The following is the method of preparation:

Melt together resorcin 22.2 grams, caustic potash 11.2 grams, and when melted, add sodium sulphovinate 33.2 grams and salicylic acid 27.6 grams. When melted, the heat is withdrawn and camphor 25 grams added. Finally, the following mixture is added: powdered boric acid 20 grams, sodium borate 60 grams, benzoic acid 25 grams, sodium benzoate 15 grams, terpin hydrate 8 grams, glycerin 200 grams, water 200 grams. Heat on a water-bath to complete solution and filter through cotton-wool.

Crystal Brilliantine.

UNDER this title the following formula is given in the "Druggists' Circular":

Natural palmitin ...	500 grams
Russian paraffin oil ...	3,000 grams
Sodium hydroxide (saturated alcoholic solution) ...	a sufficiency
Vanillin ...	7 grams
Coumarin ...	7 grams
Artificial musk ...	3 grams
Oil of sweet orange ...	25 c.c.
Oil of neroli ...	1 c.c.
Benzyl acetate ...	3 c.c.
Benzyl alcohol ...	3 c.c.
Fat-soluble chlorophyll ...	a sufficiency

Dissolve 400 grams of the palmitin in 1,000 grams of the oil by the aid of heat; saponify with the solution of sodium hydroxide until alkaline to phenolphthalein. Dissolve this soap in a solution of the rest of the palmitin in the remaining 2,000 grams of oil, at a temperature of 110° C. As the mass begins to cool stir in the colour and the perfumes previously mixed, and pour into suitable containers.

PHOTOGRAPHIC NOTES.

By a Pharmaceutical Camerist.

The Use of Hydrazine.

MR. CALDWELL has discovered that the inclusion of the salts of hydrazine, or hydroxylamine, in the emulsion renders a plate practically proof against over-exposure or reversal. Mr. Sanger Shepherd recently showed two lantern-slides, one on an ordinary photographic plate and the other on a plate previously treated with hydrazine. In the former complete reversal had taken place, while the latter plate did not even appear to be over-exposed. Plates or papers treated with the hydrazine salts may also be printed right out and toned like ordinary P.O.P., or partly printed and the operation completed by development, and in every case a photograph of extremely fine grain and with the most perfect gradation is obtained.

Concentrated Metol-Quinol Developer.

THE "British Journal of Photography," dealing with the difficulty of obtaining concentrated solutions of metol-quinol developer, states that the trouble is overcome by the following procedure: The metol and hydroquinone are first dissolved in warm water, and then the sulphite, crushed fine, is added. The result of this addition is a white, pasty mass, but on the addition of the required weight of sodium hydrate, followed by a good shaking, the mixture changes to a clear solution. A solution can thus be obtained of eight times normal strength. When carbonate is used instead of caustic soda, a little alcohol is required. A developer, such as the Wratten formula for bathed plates, can be made up in ten times strength as follows: First weigh out the metol and the hydroquinone, and shake them up well in a quantity of alcohol equivalent to one-tenth the total bulk of concentrated solution required. The two will not dissolve completely, and a large residue of metol will remain. Then take distilled water equal to half the total bulk of developer. Warm it up to about 130° F., or thereabouts, and add the sulphite, which will rapidly dissolve. When dissolved continue the heating process until the solution is very near boiling, in the meantime adding the carbonate, which will dissolve rapidly. Finally, pour this hot solution into the alcoholic mixture containing the metol and hydroquinone, and a clear solution is at once produced. This requires a little dilution to make it up to the right quantity, and while still hot it can be filtered into the stock bottle.

A New M.Q. Formula.

A NEW metol-hydroquinone formula which is mixed on these lines is also given by the same authority:

Metol	...	...	...	30 grains
Hydroquinone	...	...	...	120 grains

Dissolve in about 5 or 6 oz. of hot water, and then add

Sodium sulphite	2 oz.
-----------------	-----	-----	-----	-------

This gives a thick solution, which is cleared by adding, dissolved in a little water,

Sodium hydrate	80 grains
----------------	-----	-----	-----	-----------

Finally, dilute up to 8 oz. For use take 1 dram to make each ounce of developer.

A New Fabric Process.

A METHOD of transferring P.O.P. prints to fabrics, preferably sateen, is given by Harry D. Gower ("B.J.P.," lviii., 451). An ordinary carefully prepared P.O.P. print is taken, and if dry soaked thoroughly in water and the surface moisture removed with blotting-paper from both front and back. It is then laid face downwards on a piece of the tissue, an inch or two larger than the print, which has been pinned down by its corners to the cloth of a household ironing-board. A piece of blotting-paper just damped with glycerin (not made wet) is laid over the back, and a clean dry piece laid over all. A hot flat-iron is then pressed over the back in the same way that a piece of linen is ironed. Then, without delay, the blotting-paper is taken away, the opposite corners of the paper lifted, and the whole peeled off. If everything has gone right an excellent impression on the fabric is the result.

MEDICAL GLEANINGS.

Drying Skin-paste.

LASSAR AND UNNA have proposed various mixtures of solids with a view to forming a paste for the skin which dries quickly and adheres firmly. Dreuss has worked at the subject, and recommends the following:

Sublimed sulphur	...	...	...	10 parts
Ichthyol	...	...	...	5 to 10 parts.
Lassar's paste to make	...	...	...	100 parts

Lassar's paste consists of equal weights of zinc oxide, starch, vaselin, and lanolin. Other medicaments than ichthyol, such as tar, pyrogallol, or anthrasol, may be employed.

Excessive Local Perspiration.

MR. A. HOWARD PIRIE, in "The Lancet," reports on the efficacy of x-rays in treating cases of excessive perspiration. There were twenty cases treated, the parts involved being the face, two cases; armpits, ten cases; hands, nine cases; and feet, one case. One case included hands, face, and armpits. In two cases a cure was got after only two applications, and no more sittings were given, but usually from three to five have been required. The number of treatments required depends on the dose given. In the two cases which were cured by two sittings both suffered from the effects of too large a dose of x-rays (pain, irritation, blistering, and redness), and since these two cases the others have been done by the longer method. Mr. Pirie states that six sittings of one-pastille dose each at intervals of one month is the best treatment, as it causes no discomfort and the patient runs no risk.

Skin Sterilisation with Iodine.

MR. C. A. LEEDHAM GREEN contributed a paper to the British Medical Association which was an inquiry into the value of iodine for sterilising the skin. "The Lancet" reports the conclusions as follows: Little experimental work has been done to test the claims which have been made for iodine as a steriliser of the skin. In estimating the value of any antiseptic it is essential that the antiseptic be neutralised before any attempt at culture be made. Cultural experiments were made with small portions of ligature silk and glass beads infected with various organisms. Alcohol of 70-per-cent. strength has more antiseptic power than alcohol of any other strength. Tincture of iodine proved to have the greatest bactericidal power when prepared with 70-per-cent. alcohol, and experiment showed that this is not due, as Kutscher claims, entirely to the alcohol, the iodine being a superfluous ingredient. Comparative tests with tincture of iodine (70-per-cent. spirit), plain alcohol (70-per-cent.), and a watery solution of iodine of the same strength showed that while the watery solution of iodine possesses decided germicidal properties, it was less potent than the 70-per-cent. alcohol, which in its turn was inferior to the tincture, and this was true even with resistant microbes. Further, it was shown that an alcoholic solution of mercury perchloride of 1 in 1,000 of 70-per-cent. alcohol was superior in bactericidal power to the tincture of iodine. Experiments were also made upon the skin, and it was proved that the ordinary preliminary washing of the skin with soap and water is not merely unnecessary but actually harmful; for it does not materially lessen the number of microbes, and by macerating the epidermis it hinders the penetration of the iodine or other alcoholic solution. The question was then examined as to whether iodine has an exceptional power of penetrating and hardening the epidermis. The penetration, it was found, is not greater than with other alcoholic solutions of a like strength, and the hardening of the epithelium is lost in the presence of blood or albuminous fluids. The alcohol is the chief factor in the hardening, and this hardening is of little value except in short operations. Comparative practical tests on the skin with plain alcohol, tincture of iodine, and sublimate alcohol showed the marked superiority of the two last named, which proved to be powerful skin disinfectants, even after special contamination.

TRADE REPORT.

The prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers receive the goods into stock, after which much expense may be incurred in garbling and the like. Qualities of chemicals, drugs, oils, and many other commodities vary greatly, and higher prices than those here quoted are charged for selected qualities of natural products even in bulk quantities. Retail buyers cannot, therefore, for these and other reasons, expect to purchase at the prices quoted here.

42 Cannon Street, London, E.C., August 17.

The London dock strike and the industrial troubles at many leading centres in the United Kingdom are in a great measure responsible for an acute feeling of depression throughout the chemical, drug, and produce trades, and much uncertainty prevails in commercial circles in view of the present discontent among practically all sections of labour, especially as regards the threatened national railway strike. Business, meanwhile, is likely to remain in a negative condition, where sellers are unable to guarantee delivery, added to which chemical factories (especially in the North) are unable to obtain raw materials, and unless a speedy settlement is come to, must perforce close. Every endeavour will be made to hold a drug-auction next week, but owing to the uncertainty of unloading and sampling of goods, no definite statement on this point can be made. Meanwhile, it cannot be said that market values have been affected. Among drugs, Belgian chamomiles show a sharp advance; condurango is dearer; ergot, buchu, and quinine are in more inquiry. Sweet-almond oil has been advanced 1*d.* American peppermint oil, otto of rose, and opium are all very firm markets. Several of the leading fixed oils have advanced owing to the difficulty in obtaining supplies; these include linseed, cotton-seed, coconut, soya, and turpentine oils. The following table shows the chief changes of the week:

Higher	Firmer	Easier
Almond oil (B.P.)	Benzols	Calumba
Caraway-seed	Citronella oil	Lemongrass oil
Chamomiles	(Ceylon)	(c.i.f.)
Condurango	Quinine	Pilocarpine
Linseed oil	(second-hands)	
Turpentine		
Wahoo-bark		

Next Week's Drug-auctions.

In spite of the chaotic conditions prevailing at the docks and wharves, next week's drug-auctions will probably be held, and goods are to be advertised for sale as usual. Meanwhile the situation at the docks is by no means free from anxiety, and much confusion has prevailed among the men during the week. To-day it is stated there are about 12,000 still out, and owing to sectional differences the outlook at the close is not so hopeful.

Manchester Chemical Market.

August 15.

For the time being, Manchester is again a strike centre, with the exception that on this occasion it is not confined to a section, but apparently to every division of the labour world. Yesterday evening, at six o'clock, the goods porters and other traffic-handlers came out, but in the meantime merchants and others in the chemical trade made strenuous efforts to get their goods warehoused in the city, and, we are informed, with a great measure of success. Works will thus be kept going which under other conditions would have to shut down for want of raw material. In other respects, there are few new features to report. In heavy alkalis, however, the trend of prices is in buyers' favour, as demand is slow. Generally quotations are: Ammonia alkali, 58 per cent., 3*l.* 15*s.* to 4*l.*; soda ash, caustic, 48 per cent., 5*l.* 10*s.*;

ditto, refined, 6*l.*; carbonated, 5*l.* 10*s.* per ton f.o.r.; white caustic soda, 77 per cent., 10*l.* 12*s.* 6*d.*; 70 to 75 per cent., 9*l.* 12*s.* 6*d.*; 60 per cent., 8*l.* 12*s.* 6*d.*; cream, 60 per cent., 8*l.* 10*s.* per ton. Soda crystals, bags, 50*s.* to 52*s.* 6*d.*, f.o.r. at works. Sulphur firm, recovered 5*l.* Sulphate of copper is easier, at 19*l.* 10*s.* to 19*l.* 12*s.* 6*d.* per ton for prompt delivery, and 2*s.* 6*d.* per ton higher for near forward delivery Manchester. Aniline oil 5½*d.* to 5¾*d.*, and salts 5½*d.* Montreal potashes firm at 38*s.* to 40*s.* per cwt. ex store Manchester. Miscible and solvent wood-naphthas maintain full rates. White sugar of lead, English 26*l.*, and foreign 25*l.*, c.i.f.; brown, 20*l.* 5*s.* per ton, Manchester. Nitrate of lead, 25*l.* Oxalic acid, 2½*d.* per lb. Brown acetate of lime steadier at 6*l.* to 6*l.* 5*s.* Alum, loose lump, 5*l.* 10*s.*; lump in tierces, 5*l.* 12*s.* 6*d.*; ground, in bags, on rails, 6*l.* to 6*l.* 5*s.*; Sulphate of alumina, 24 per cent., 4*l.* 10*s.* per ton. Carbonate of ammonia, 3¾*d.* per lb.; muriate, 24*l.* White powdered arsenic very quiet at 10*l.* 5*s.* to 10*l.* 10*s.* per ton. Green copperas, 10*s.* to 12*s.* 6*d.* per ton in bulk on rails; barrels, 35*s.* Coal-tar products quietly steady. Sulphate of ammonia firm at 14*l.* 7*s.* 6*d.* to 14*l.* 12*s.* 6*d.* per ton on rails Manchester. Owing to failure to obtain supplies of raw materials the large Widnes and St. Helens chemical firms have notified their customers that they are unable to guarantee deliveries.

Heavy Chemicals.

The heavy-chemical market is at present influenced by the effect of the industrial disputes and labour troubles, and by the holiday season. When this is taken into consideration the general demand is good, while the tone of values is very well maintained.

SULPHATE OF AMMONIA keeps very firm in tone, and the heavier demand is practically absorbing all prompt parcels. There is a heavier inquiry reported, more especially from the United States and Japan. Present nearest figures are Beckton, September-December, 25-per-cent. ammonia guaranteed, 13*l.* 15*s.*; London terms, 13*l.* 12*s.* 6*d.*; Leith, 14*l.* 5*s.*; Liverpool, 14*l.* 2*s.* 6*d.*; and Hull, 14*l.* For forward an advance of 2*s.* 6*d.* upwards is being asked.

BENZOLS are on the firmer side, and look likely to remain so. There is a strong inquiry, particularly for early delivery, while supplies are on the scarce side. Present naked prices: London, 90 per cent. 8½*d.*, and 50 per cent. 8*d.*; North, 8½*d.* and 7¾*d.* respectively.

ALUMINA PRODUCTS call for little special comment. The demand both on contract and miscellaneous account is a good average, and prices rule steady at practically unchanged rates. Crystal alum, lump, 5*l.* 5*s.* to 5*l.* 15*s.*; lump in tierces, 5*l.* 10*s.* to 6*l.*; and ground, in bags, 5*l.* 15*s.* to 6*l.* 5*s.* per ton, free on rails Lancashire or Yorkshire, or f.o.b. Goole, Hull, or Liverpool. Sulphate of alumina purest qualities, practically free of iron, ordinary strength quality, 4*l.* 12*s.* 6*d.* to 5*l.* 2*s.* 6*d.* per ton in casks, with customary allowances for bags and loose slabs, and usual extras for the same pure quality in higher concentrations. Alumino ferric 50*s.* to 57*s.* 6*d.*, and aluminous cake 50*s.* to 57*s.* 6*d.*, according to quality, quantity, and destination. Hydrate of alumina, purest quality and high strength, Al₂O₃ . 12*l.* 10*s.* to 13*l.* 10*s.* per ton, in large casks, free on rails. Aluminate of soda, purest quality and high strength, Al₂O₃ . 25*s.* to 27*s.* 6*d.* per cwt. Carbonate of alumina, 30*s.* to 32*s.* 6*d.* per cwt.

Continental Drug and Chemical Markets.

CARAWAY-SEED.—Owing to extension of the cultivated area the returns from this year's crops are estimated at 200,000 bags, compared with an average of 113,298 bags during the last seventeen years. This is a considerable increase, and a further fall in prices has been the result, m.38.50 per 100 kilos. f.o.b. Holland being now quoted. On the one hand, the peasants will not sell at these prices, while on the other it is thought that the price will be effective, so that business is for the time being at a comparative standstill.

CASCARA SAGRADA.—Stocks have considerably shrunk owing to active demand on the part of consumers. Spot (Hamburg) goods are being held at m.85 per 100 kilos.

GLYCERIN.—The situation is unsettled, and it is impossible to pronounce on the future development. The attitude taken up, less by the manufacturers than by second-hands, shows that there is an inclination to do business at a low profit in order to escape from possible further reductions later. The crude-glycerin market is slowly receding, but account should be taken of the fact that there may be an improvement in the demand from day to day.

HYDRASTIS.—Prices from America are again higher, and goods for shipment are not obtainable under m.35.50 per kilo. Several lots on the Hamburg market were sold at m.36 per kilo. The opinion is that m.40 will shortly be quoted.

IPECACUANHA.—The stocks of Cartagena in Hamburg are very small, and m.17 per kilo. is quoted. Rio, on the other hand, is plentiful, but sales, however, only took place in small lots; the present value is m.17 per kilo.

JALAP RESIN.—Quotations vary between m.32 and m.34 per kilo., with a normal demand, which prevents a further rise, as it is practically certain that the stocks in makers' hands are considerable.

MASTICH.—It is comprehensible that there should be small stocks, in view of the fact that we are now dealing with the residue of last year's crop. The new crop, with regard to which nothing can yet be said, will only begin in October. With a continuance of the present good demand there is a possibility of an advance. Quotations range from m.460 to m.500.

London Markets.

AGAR-AGAR. after a lengthened period of inactivity, has shown more demand, No. 1 Kobe strip selling at 1s. 9d. per lb. spot in small lots.

ALMOND OIL.—The English pressers announce an advance of 1d. per lb. in the price of sweet B.P. oil, which is now 2s. 4d. per lb. in cwt. lots, and 2s. 6d. for bleached.

ALOE.—The *Balmoral Castle* has brought 42 packages from Mossel Bay. The exports from Cape Colony during June 1911 amounted to 31,162 lb. (369%), against 75,599 lb. (711%) during June 1910. The exports for the six months ending June were 328,045 lb. (3,248%), against 449,736 lb. (4,458%) for the corresponding period of 1910.

ANISEED is firm at 25s. per cwt. for fair Russian.

BERGAMOT OIL remains firm both on the spot and in primary markets; the fact that the United States has been a buyer lately has helped to maintain the position; from 20s. to 21s. net is quoted on the spot.

A Palermo advice of August 12 reports a very firm market, with somewhat higher figures quoted for the few parcels available.

BCHU.—There has been more inquiry for export, and holders remain firm on the basis of from 4s. 4d. to 4s. 6d. per lb. for round green, although there are one or two outside sellers at slightly lower prices. No lots of good clean quality are obtainable, the offerings consisting of stuff adulterated with klip and chopped stems. No arrivals of round have taken place for the last three weeks.

The exports from Cape Colony during June 1911 amounted to 31,871 lb., valued at 5,388%, as against 8,956 lb., valued at 1,002%, in June 1910. The exports for the six months ended June amounted to 146,803 lb. (21,578%), against 186,801 lb. (15,623%), or 40,000 lb. less.

CALUMBA.—Stocks are accumulating, and it is possible to buy fair natural sorts from first-hands at 17s. 6d.

CAMPHOR (REFINED).—Quiet, with sellers of Japanese 2½-lb. slabs at 1s. 6d. per lb. on the spot, and at 1s. 6½d. c.i.f. for August-September shipment.

CANARY-SEED is steady at recent quotations, 42s. to 44s. per quarter for ordinary to good quality.

CANNABIS INDICA.—The market has lately been cleared of the bulk of East African, with a limited quantity now available at 1s. 6d. The paper read by Mr. Harold Deane at the British Pharmaceutical Conference wherein he showed that the Madagascar drug yields from 17 to 27 per cent. of alcoholic extract, containing from 76 to 93 per cent. of resin, has given quite a fillip to the article.

CARAWAY-SEED is dearer at 22s. 6d. per cwt. for fair Dutch.

CHAMOMILES are much dearer, and it is exceedingly difficult to get offers except in very limited quantities, 150s. per cwt. being asked for new Belgian flowers, which are of white colour, but small; fair old are offered at from 115s. to 125s., London terms.

CINCHONA.—Further particulars in regard to the Amsterdam auction to be held on August 24 show that the 11,891 bales and 863 cases Java bark weigh about 1,159,878 kilos., the quinine-content being equivalent to 74,048 kilos. Of the above quantity, 1,041,089 kilos. is manufacturing, containing 69,615 kilos. of quinine, while the remaining 118,789 kilos. is druggists' bark, and contains 4,433 kilos. quinine. The average percentage of quinine in the manufacturing bark is 6.69, as against 6.54 in July and 6.50 in June. At the London auction on Tuesday, 163 packages, comprising 74 packages East Indian and 89 bales Java offered, and the bulk sold at full rates, the average unit being unchanged at ¾d. to ⅝d. per lb. The East Indian bark sold at 2½d. for Ledgeriana stem chips, 2½d. to 2¼d. for officialis natural stem chips, 3½d. for root, and 4d. for

quills; of the Java, 37 bales sold at 5½d. for Ledgeriana stem chips.

CITRONELLA OIL.—Ceylon is firm, with buyers at 11¾d. per lb. c.i.f.; on the spot cases are quoted 1s. 1½d. and drums 1s. per lb.

CLOVES are quiet but steady at 8½d. per lb. spot nominally, also June-August and July-September delivery; for arrival sellers quote August-October at 6¾d.; business has been done at 5¾d. for November-January and at 5¼d. c.i.f. for January-March shipment, and sellers. At auction 8 cases dullish Penang were bought in at 1s. 1d.

COCA-LEAVES.—At the auction to be held at Amsterdam on August 24, 1,250 packages, weighing 66,658 kilos., will be offered, the total alkaloidal content being 1,017 kilos. and the average percentage 1.53.

COD-LIVER OIL.—The market (according to our Bergen advice of August 14) is quiet but firm at 112s. 6d. per barrel c.i.f. for finest non-congealing Lofoten oil, and locally agents quote up to 115s. c.i.f.

CONDURANGO is higher, owing to the fact that no arrivals have taken place on the Continent of late; 70s. per cwt. c.i.f. is asked.

COPAIBA remains firm, the value of Para being 2s. 4d. and Maracaibo 1s. 9½d. to 1s. 10d. per lb. net.

COPPER SULPHATE.—The London quotation for ordinary brands is 20l. for prompt delivery; Liverpool being nominal at 19l. 15s. for prompt and 19l. 15s. for January-April.

CORIANDER-SEED sells steadily at 16s. per cwt. for good Morocco; for Russian 16s. 6d. is asked.

CUMIN-SEED is slow of sale at 22s. 6d. per cwt. for fair Morocco and 32s. 6d. for Malta.

DIGITALIS-LEAVES.—Only small quantities are available, holders of which ask 45s. per cwt.

ERGOT has been in more demand, holders asking 4s. 3d. per lb. spot for Spanish. It is still difficult to get offers of new-crop Spanish; to arrive for September delivery sound Russian old crop is quoted in limited quantity at from 3s. 9d. to 4s. c.i.f., and business has been done at these figures.

FENUGREEK-SEED.—The price for retail lots is 8s. 6d. per cwt. for Morocco, but parcels for shipment can be bought at 7s. 3d. c.i.f. terms.

GINGER.—Quiet. At auction 680 packages Cochin and Calicut were offered, of which 40 bags washed rough Cochin sold at 42s. Good small-cut Calicut was bought in at 75s., medium-cut at 85s., and bold brown Calicut rough at 50s.

HENBANE.—As previously reported the crops of most German and Russian botanical and narcotic drugs are now very dear, the collectors asking exorbitant prices as the result of the drought. German henbane is quoted 60s. to 70s. c.i.f., and the new crop of Russian is said to be a failure; old crop to arrive is quoted 27s. 6d. per cwt. c.i.f.

HYDRASTIS is again dearer to arrive, prices varying from 17s. 6d. to 18s. per lb. c.i.f., according to shipper; on the spot a limited quantity is available at 18s. to 18s. 6d. net.

JABORANDI.—Good green small leaves are offered at 6d. per lb.

JALAP.—There is rather more inquiry, the value of 10 per cent. resin being 1s. 6d. per lb.

LAVENDER OIL.—One of the distillers announces that his price for finest English oil is now 50s. per lb., which is an advance of about 12s. on previous prices.

LEMON OIL.—From Sicily our weekly advice, dated August 12, reports another slack week, the export demand being very limited, and local buyers have no urgent requirements to fill. The market position, however, remains quite unchanged, as the available supply is comparatively small, while holders feel confident they will be able to clear their stocks before the new crop comes in. Trade has also been inactive in new crop, and the highest figures that have been paid for contract quantities could be eased. For shipment 6s. 2d. to 6s. 8d. per lb. c.i.f. is quoted.

LEMONGRASS OIL.—A good business is reported in Cochin oil to arrive at from 4½d. down to 3½d. per oz. c.i.f. terms, being easier, but at the close the tone is firmer. There is very little to be had on the spot, and 4¾d. has been paid.

LIME-JUICE.—West Indian raw is practically unobtainable in the open market.

LINSEED is firm at 70s. to 72s. 6d. per quarter for good clean quality.

MENTHOL.—A few sales on the spot have been made at 16s. 6d. per lb.

OILS (FIXED).—*Linseed* shows a sharp advance for immediate delivery; up to 43s. 6d. has been paid for pipes and 44s. for barrels. *Coconut* is also dearer, especially for forward positions. Ceylon on the spot is quoted 42s. and Cochin 43s. per cwt. *Rape oil* is firm at 30s. 6d. per cwt. for ordinary brown crude in barrels on the spot, and 31s. 3d. for English refined in casks. *Cottonseed* is dearer at from 26s. to 26s. 9d. for crude, 28s. 6d. for ordinary pale refined, and 32s. for sweet refined. *Soya oil* has advanced 6d. to 28s. for barrels on the spot, and *Lagos Palm oil* is quoted 33s. on the spot, and at 30s. in Liverpool.

OLIBANUM.—Fair arrivals have taken place during the past fortnight. Fair siftings are offered at 20s., drop at from 25s. to 47s. 6d., and pale tear at from 50s. to 60s. per cwt. as to quality.

OPIMUM.—With buyers holding off there is little new to report; from Smyrna the usual 11½ per cent. quality is offered at about 24s. c.i.f. terms. Persian remains a firm market, spot business having been done at 21s., but no further sellers. The *Adalia*, from Persian Gulf ports, has brought seventy cases this week.

Writing on August 4, a Smyrna correspondent states that the sales amount to 30 cases old and new crop for America at from 23s. 8d. to 25s. 6d., as to crop and quality; 40 cases old and new, probably for England and the Continent, at 23s. 8d. to 25s. 6d., as to crop and quality; and 15 cases, mostly new, for local and interior speculators, at 23s. 8d. to 25s. 6d. The Smyrna stock is not over 550 cases of old opium and 100 new, the arrivals being 335, against 1,358 cases.

A Smyrna advice, reviewing the month of July, reports an active demand, the sales amounting to 270 cases of old and new qualities at from 21s. 6d. to 25s. for old extra Karahissar, and 19s. 6d. to 23s. for new crop selected. Holders continued raising prices owing to the small arrivals, and were encouraged further to do so by buyers, who showed no hesitation in responding fully to sellers' gradual, but steadily, enhancing pretensions. Judging by the insignificant arrivals of new crop, it may safely be said that the production this year will not exceed 3,000 baskets, including Salonica. Notwithstanding therefore that prices appear high, they are quite justifiable, owing to the smallness of the crop and to short stocks of old still existing on primary and consuming markets. The arrivals to date amount to 267 cases, against 1,566 at same date last year, and in Constantinople 88, against 1,390. The Smyrna stock is about 761 cases, against 941 at same date last year, and in Constantinople 290, against 516 cases.

ORANGE OIL remains exceedingly scarce and firm in primary markets, and according to a Palermo advice of August 12, there are very few sellers of new crop; for shipment 8s. 3d. per lb. c.i.f. is quoted for sweet.

ORANGE-PEEL is in fair demand, Maltese strip selling at from 7½d. to 8½d. per lb. as to quality.

ORRIS.—The prices asked for new crop Florentine, which is available in September, are above buyers' ideas of value; on the spot from 41s. to 46s. per cwt. is quoted as to quality. The spot stock of Morocco, which is much reduced, is firmly held at 33s., at which business has been done.

OTTO OF ROSE.—Very few contracts for new otto appear to have been completed, consumers buying for their immediate requirements only. Advices have been received conclusively showing that prices equal to from 45s. 6d. to 47s. 6d. per English oz. have been paid for naked otto on the fields, and, adding the necessary profit and expenses, it is claimed that finest quality cannot be sold under 55s. net per English oz.

PEACH-KERNEL OIL.—English pressed is quoted at from 11½d. to 1s. 0½d. per lb., the latter being for 1 cwt. lots, and foreign sells at 9½d. net.

PEPPER.—No supplies offered at auction. Privately demand is quiet, with fair Singapore offering at 4½s. d.; for arrival the sales include January-March at 5½s. d. and buyers; also 4½s. d. to 4¾s. d. has been paid for Lampong for October-December shipment. *White* is also quiet, sellers of fair

Singapore quoting 7¾d. spot, the value of August-October shipment being 7½s. d. c.i.f.

PEPPERMINT OIL.—American tin oil remains very firm, the usual standard brands offering at from 13s. to 13s. 6d. landed terms, with outside brands at about 6d. less; further sales of H.G.H. have been made at 15s. 3d., but 15s. 6d. is a more current quotation.

QUININE.—There is more demand, principally on export account, and prices are firm. Java has been sold at 6½d. to 6¾d., the higher quotation being more operative. Amsterdam is firm at 7d., and German at 7½d. per oz. from second-hands. At the auction held by the Amsterdam quinine-works on August 11, 1,417½ kilos. (50,000 oz.) Ed. II. was sold at an average price of fl. 10.95 per kilo., against fl. 11.08 per kilo. at the previous auction. The next auction will be held on September 1, and will consist of 1,417½ kilos. Ed. II.

SENEGA is firm at 2s. 4d. per lb. net on the spot, and to arrive the quotation is without interest at the moment.

SHELLAC remains quiet, with sellers of fair TN orange at 63s. per cwt., and for August-September shipment 62s. c.i.f. is quoted.

SQUILL.—Arrivals of the new crop are now taking place, these including 22 bags. Prices vary from 1½d. to 3½d. per lb. for off-colour to fine white.

TARAXACUM.—Cut foreign is dearer at 45s. per cwt. on spot terms to arrive; foreign whole is offered at 36s.

TONKA BEANS.—For Angostura the spot value is 21s. to 21s. 6d. per lb., according to holder, and to arrive 22s. 6d. net c.i.f. is quoted.

TRAGACANTH.—The recent arrivals have been mostly of the medium grades, which have been selling at from 10l. to 13l. per cwt. Druggists' firsts are quoted at from 16l. 10s. down to 15l. 10s.

TURPENTINE.—The opinion expressed in our paragraph on page 303 of last week's issue has been fully borne out, the market having shown a steady daily advance, aggregating 1s. 6d. to 2s. per cwt., closing at 39s. 9d. for American on the spot, and 40s. 3d. for September-December delivery.

WAHOO-BARK is dearer at the equivalent of 1s. 8d. per lb. spot for bark of root.

Exports to Japan.

The Board of Trade are in receipt, through the Foreign Office, of telegraphic information to the effect that from October 1 next the Japanese Customs Authorities will require that all invoices for goods exported to Japan shall be signed by the "seller" in the country of production. The term "seller" is to be understood to mean the "last seller" or "supplier," and does not include the London house of an importer. Press copies of invoices will not be accepted by the Japanese authorities.

American Turpentine.

The annual production of turpentine in the United States is approximately 37 million gallons, valued at 14 million dollars, and one-half of this production finds its way to foreign countries. The turpentine-producing area of the United States, according to a monograph prepared by the Bureau of Chemistry of the Department of Agriculture, which is authority for the following statements, is practically confined to the coastal plains region of the Southern States. In the earlier days the industry was best developed in North Carolina, but owing to the destructive methods of turpentine-orcharding, in conjunction with lumbering fires, etc., the industry has gradually worked southward and westward, until at present Florida produces the most turpentine, followed by Georgia, Alabama, Mississippi, Louisiana, North Carolina, South Carolina, and Texas in the order named. The production in the last forty years has risen from six million gallons, valued at somewhat over two million dollars, to 37 million gallons, valued at 14 million dollars. The greatest strides in production were made prior to 1900, since which time the output has been practically stationary. The quantity produced and the value thereof in the last forty years, according to the census reports, has been as follows: 1870—6,004,887 gals., \$2,194,498; 1880—17,565,250 gals., \$1,542,120; 1890—17,316,200 gals., \$5,459,115; 1900—38,488,170 gals., \$14,960,235; 1908—36,589,000 gals., \$14,112,490. It is the trade practice to grade turpentine according to its colour, and the various grades are known as "water-white," "standard," "off one shade," "off two shades," and "off three shades." The last-named is not merchantable. Under

The trade regulations the deduction in price on turpentine off one shade is 2.5 cents per gal., and off two shades 4 cents. Of late years, however, it has become customary to mix the coloured turpentine with water-white or standard turpentine, adding a small quantity to each barrel which is not full.

Soya Beans and Oil.

A distinct turn for the better has manifested itself in recent weeks in the soya-bean trade, which has had its reflex in the more active demand for the by-products, while supplies in this country have this year fallen considerably short of last year. The total arrivals for the seven months ending July were only 177,827 tons, or more than 50 per cent. less than for the same period last year. It is obvious that the output of soya oil and cakes has been much reduced, which is now being felt more particularly in cakes, which are practically unobtainable with a keen demand at high prices, although the oil-product has so far not readily responded to the sharp advance in raw material. The latter is very tightly held in the Far East, the supplies in Manchuria available for export being now much reduced, although the crop has been 25 to 30 per cent. larger than last year. C.i.f. quotations for cargoes have been raised not far short of 1% per ton from the level touched about two months ago, and fresh supplies can only be contracted for at full prices. The tightness is largely due to the much heavier Eastern requirements, Japan having absorbed big quantities, while the tonnage afloat to this country is considerably less than a year ago. As prospects in linseed oil point to the continuation of high prices over the remainder of this year, soya oil is likely to be used in fair quantities as a substitute wherever possible, while its present value is over 12% per ton under that current for linseed oil.

Ylang-Ylang in Réunion.

In a pamphlet on ylang-ylang published this year in Paris, Desruisseaux has advanced the opinion that the true ylang-ylang plant is a native of China, whence it spread to Burma and eventually to the Malay Archipelago. This plant is *Cananga odorata*, Hook. The same authority states that there is another plant almost indistinguishable from this, which he names *Uvaria Cananga*, and which is probably identical with the *Canarium odoratum*, Baill., that is being cultivated in Java. The former yields true ylang-ylang oil, while the second furnishes cananga oil. In "De Indische Mercuur" for June 20 last Dr. Dekker points out that this observation explains the failure to obtain ylang-ylang oil from the flowers of the cananga-trees cultivated in Java. The two trees probably are related to each other in the same way as the sweet and bitter almonds, the only difference being in the oils they yield. The Réunion oil is derived originally from trees indigenous to that island, and which would seem to be true ylang-ylang trees. It is proposed to investigate the validity of Desruisseaux's views by an exchange of seeds and cuttings between Manila, Réunion, and Buitenzorg, if possible. In Réunion the plants are grown from seed, usually in plantations of sweet potatoes or cassava, which are employed as shade-plants for the young trees in the first year or two. The trees yield blossoms for about twenty years, but they should be renewed after twelve or fifteen years, as otherwise the yield of bloom becomes too small to be profitable. At four years of age the yield of flowers is about 5 kilos. per tree, and increases to about 10 to 15 kilos. for trees ten years old. The flowers yield from 1.5 to 2.5 per cent. of oil. According to Benard, Réunion oil has the following constants: Specific gravity at 15°, 0.9714; rotation, -42° 24'; saponification-value, 148.4; acetyl-saponification value, 189.8; and contains esters 51.94 per cent., free alcohols 11.35 per cent., combined alcohols 40.84 per cent., phenols 12.35 per cent., and traces of aldehydes. The constituents are pinene, geraniol, linalool, benzyl alcohol, benzyl acetate, linalyl acetate, methyl benzoate, linalyl benzoate, and methyl salicylate, with small quantities of *p*-cresol, eugenol, *iso*-eugenol, methyl eugenol, and methyl-*p*-cresyl ether. The annual production in Manila is 2,000 to 2,500 kilos., and in Réunion it was 1,391 kilos. in 1908-09, with smaller amounts in Madagascar at Nossi-Bé and Mayotte. The price has fallen in recent years, and steps have already been taken to reduce the output in Manila and Réunion. In the latter place the hurricane which occurred in March of this year destroyed about 1,500 kilos. of flowers, and this has already raised prices to some extent. In view of these facts extensions of the industry in Java is not recommended, though it is suggested that attempts might be made to produce true ylang-ylang oil there in place of cananga oil. In the Java oil Elze has recently detected nerol and farnesol.

THE MARUISHI CHEMICAL CO., of Osaka, whose premises were destroyed by fire last year, have reconstructed their factory. The new building is three times as large as its predecessor.



Memoranda for Correspondents.

All communications must be accompanied by the names and addresses of the writers, otherwise they cannot be dealt with. Queries by subscribers on dispensing, legal, and miscellaneous subjects connected with the business are replied to in these columns if they are considered to be of general interest. Letters submitted for publication (if suitable) should be written on one side of the paper only. Their publication in "The Chemist and Druggist" does not imply Editorial agreement with the opinions expressed.

Insurance Bill Dispensers.

SIR,—The letter from "Amicus" in the *C. & D.* (August 12, index folio 306) does not go half far enough. Why have chemists' assistants been abandoned in favour of doctors' dispensers? Everyone who has had experience in a doctor's dispensary knows the slipshod style in which things are done; in many a case it cannot be called dispensing when compared with what is done in a pharmacy. What of the men who have been apprenticed and served years in a pharmacy, yet have not qualified, and have studied the art of dispensing? Are these to be passed over in favour of a doctor's odd man who has compounded a few stock-mixtures and would not be able to make a pill or spread a plaster to save his life? I admit that all doctors' dispensers do not belong to this category, yet those who do, and have done the work for the specified time, will be allowed to dispense. My own case is this: I was an indentured apprentice in a splendid dispensing-business for three years, then followed a year as improver; since then I have been sixteen years in one berth, doing practically all the dispensing. Am I to be superseded by the man who has mixed up the local doctor's simple prescriptions and boxed proprietary pills and tablets for him for a few years? Yours faithfully,

AGRICOLA. (11/8.)

The Craze for Cheap Drugs.

SIR,—Will you kindly allow me space in your paper to comment on one of "Xrayser's" observations in the *C. & D.* (August 5, index folio 241)? He criticises a remark of Mr. Wells in his Presidential Address by stating that he did not consider there was sufficient ground for his reference to the craze for cheap drugs. I was manager for a short time of a branch company pharmacy, and the reason for my leaving them was due to inattention to my frequent complaints of the dirty and sometimes impure condition of some drugs supplied to the branch. If "Xrayser" had had my experience he would have classed some of the company chemists' stores with infirmaries and other public institutions. Yours truly,

PHARMACIST. (127/16.)

Powdered Extracts.

SIR,—With reference to your short survey of the papers read before the British Pharmaceutical Conference, we note in your issue of July 29, in commenting on our paper, you say:

The authors discussed consistencies of extracts, and dissented from Farr and Wright's suggestion to use the powdered crude drug as a diluent for dried extracts.

This remark was evidently made under a misapprehension, as, far from dissenting from Messrs. Farr and Wright, we upheld the position they have taken up in this matter, and in our paper recommended the employment of powdered crude drugs, as so ably set forth by the authors referred to. We pointed out that the drug used as the diluent should be finely powdered, so that the particles present the greatest possible surface in proportion to the weight required for standardising the extract.

Yours truly,

KENNETH C. ALLEN, Director.
7 Cowper Street, E.C. (STAFFORD ALLEN & SONS, LTD.).

The Preliminary Examination.

SIR,—This subject, to which reference was made last week in the *C. & D.* (index folio 277), has long interested me. I think that the scholastic expert has diagnosed the trouble all right, but I differ from him regarding the proposed remedies. An Apprentices' Study Committee is no doubt an excellent idea, but I do not think it will be possible to get pharmacists to combine to provide classes and pay for men to teach Latin and mathematics when there are hundreds of schools which ought to be doing that very work. If pharmacists were in earnest in this matter, they would go to the Education Committees and insist upon the provision of means whereby the rising generation of chemists can be properly equipped for their life's work. The preliminary work is no less essential than the more advanced, and it surely deserves a share of the ratepayers' money quite as much as the travelling expenses of youths who want to dabble in a little practical chemistry at the public expense. What seems to be wanted is a leader with a definite scheme to place before chemists. If Mr. Woolcock could start his new work free of red-tape, he might do worse than endeavour to organise improved local educational facilities.

Yours truly,

AJAX. (14/8.)

The Value of the Major.

SIR,—I was arrested by your remarks *re* the "Major" in your Educational Number. You state that "the Major is a hall-mark of value at all times and without it some positions cannot be got." To me this is news. As a Major man, who since qualifying has spent five years in the retail, I have found the Major of no value at all. I have been looking out, when not quite oppressed by immediate surroundings, for some "plum" to be striven for, and in the attaining of which the higher qualification is an essential, but so far no such position has come within my view. I should like specific examples of the kind of position referred to. Yours, etc.,

PH.C. (132/28.)

Subscribers' Symposium.

For questions, answers, incidents, and interchange of opinions among "C. & D." readers.

The Aviation Race.

The following may interest some brother pharmacists. My messenger, who is a typical errand-boy, old-fashioned and simple, was speaking to one of the maids, when I overheard him remark: "'Ard luck about Vedrines not winning the air race, wasn't it? But I wouldn't mind being him, as he's got 1,000*l.* consultation prize.'"—W. C. A. (120/53).

Mosquito Pest.

Referring to the formula given in the *C. & D.*, June 24 (index folio 928), Mr. A. E. Bertie-Smith, Entebbe, Uganda, writes enclosing a circular concerning Uganda lemon-grass oil. He states "that there is nothing in the world equal to this article, as a preventive or palliative for mosquito-bites. It would pay pharmacists in any part of the world to pack small bottles of the oil and recommend it in every case to their customers."

The hand-bill which Mr. Bertie-Smith encloses is as follows:

MOSQUITOES.

Magical Relief for their Annoyance.

It is not generally known that CYMBOPOGON or LEMON GRASS OIL

is an instantaneous Palliation for the Irritation caused by the bites of MOSQUITOES, TICKS, FLAS, and other VENOMOUS INSECTS. A Single Drop applied to a bite acts like magic.

Everyone knows what nasty sores may be produced by scratching and tearing the skin after a bite; but few persons are aware of the instantaneous relief given by LEMON GRASS OIL.

Its use will be found to be an absolute boon on Safari, for it also keeps away insects.

Never travel without it.

Bottles of the Oil, distilled by me in the Botanical Gardens, ENTebbe, can be had

Price Rs.2/- and Re.1/- each.

Glassine Labels.

Mr. C. C. H. Cadge, Bingham, writes: "I should be obliged if you would allow me to ask for opinions from fellow chemists *re* glassine labels for shop-rounds. Are they satisfactory in use? Do they stand as well as gold-paper

labels? I am aware that they would not be satisfactory for such things as glycerin, lin. camph., etc., but are they suitable for bottles containing spirituous preparations?"

Legal Queries.

Consult the Legal Advice Section of "The Chemists' and Druggists' Diary," 1911, p. 435, before writing about your difficulty.

Flox (131/68).—A manager of a branch business who is paid a weekly salary outdoors is subject to a month's notice, unless there is an agreement to the contrary.

H. H. (5/8).—LIQUID AMMONIA will require to be labelled "Poisonous" in February next, the word "Poison" will not meet the requirements of the Poisons and Pharmacy Act.

H. J. S. (126/63).—"Liver-*tonic*," being a "reference to the manner in which the medicine acts upon the organ," is a dutiable title. "Blood-mixture" is not a dutiable title, and no other wording on the label renders it liable.

Ajac (128/7).—An unqualified person cannot sell animal medicines containing scheduled poisons, and the arrangement you, as a chemist, propose to make with such a seller would not make it any more legal. The company-clauses of the Poisons and Pharmacy Act offer the only way out of the difficulty.

Galen (128/1).—SALE OF MEDICATED WINES.—We do not know the composition of the proprietary cinchona-wine to which you refer, and hence have no means of telling whether it comes within the definition of the Board of Customs and Excise as to excisable wines. Refer to *The Chemists' and Druggists' Diary*, p. 457, for further particulars on the matter.

J. B. (20/53).—The wording on your labels does not constitute an adequate disclosure of the composition of the medicaments to which you have applied ailment-names. It is a pity that you do not adopt the simple means offered you for taking advantage of the privilege to which you are entitled under the exemption in the Medicine-stamp Acts regarding "known, admitted, and approved remedies."

A. F. (125/34).—(1) You would be liable if the charwoman was injured while in your employ, and on this account would be well advised to insure against accident. Insurance companies provide for casual labour in their policies. (2) It is the duty of local councils to make provision for the public health, and they have power to compel the supply of sanitary dust-bins to dwelling-houses. The landlord is liable to supply these in the case of small dwellings.

A. H. J. (122/35).—(1) The amount of cantharidin in the rose, rosemary, and cantharidin hair-wash may be so small as to come within the principle of *de minimis ne curat lex*, otherwise cantharidin is in Part I. of the Poisons Schedule. It will be obvious that *prima facie* a preparation stated to contain cantharidin must be labelled "Poison." (2) The present ruling of the Board of Customs and Excise is that any person or company entitled to carry on a chemist's business under the Pharmacy Acts is entitled to the exemption under the Medicine-stamp Act as regards "known, admitted, and approved remedies."

G. W. & S. (125/2).—STRENGTH OF VINEGAR.—An analyst would probably condemn as adulterated with water a vinegar which showed an amount of acetic acid so low as 3 per cent. The numbers 18, 20, 22, and 24 by which the strength of vinegar is indicated refer to the number of grains of pure dry sodium carbonate which will neutralise 1 oz. of the vinegar. The real weight of acetic acid in 1 oz. is found by multiplying its number by 1.132 and the percentage by weight by multiplying the number by 0.259. There is no fixed standard by vinegar, but the above indicated strengths are those usually sold. When vinegar was official in the British Pharmacopœia it was of a strength of 5.41 per cent. of real acetic acid. The strengths you indicate would not fall so low as 3 per cent.

Apprentice-Master (126/11) asks how he should deal with an apprentice who has developed into a "work-shirker," and whose conduct is otherwise unsatisfactory. He encloses his copy of the apprenticeship indenture. [In the circumstances which you detail it will be best for all parties that you should finally warn the apprentice and his mother that unless the apprentice mends his ways he will either be discharged or proceedings will be taken. If the apprentice does not act on this warning it will be necessary either to take proceedings against him before the magistrates or discharge him and take the risk of an action being brought for damages. You should also try to avoid injuring the prospects of the young man, who may be more in need of friendly advice than severe treatment.]

Miscellaneous Inquiries.

We do not as a rule repeat information given in this section during the past twelve months. When references are given to past issues, these should be consulted. Back numbers for the past five years can generally be obtained from our office at the published prices. We do not undertake to analyse and report upon proprietary articles.

Sinapis (131/68).—BLEACHING SPONGES.—The best way of bleaching sponges is to give alternate baths of potassium permanganate and sulphurous acid, but if they are not very dark-coloured a single bath suffices of

Potassium permanganate	...	2 dr.
Hydrochloric acid	...	2 oz.
Water	...	2 gals.

After immersion in the bleaching-bath the sponges are soaked in several changes of water and dried.

N. S. (Dresden) (106/66).—CHEWING-GUM.—Chicle gum, employed as a basis of chewing-gum, is first purified from foreign matter by boiling with water and drying the gum. The general formula is as follows:

Gum chicle	...	1 lb.
Powdered sugar	...	3 lb.
Flavouring ingredients	...	q.s.

The gum chicle is coarsely powdered, mixed with the sugar, and then heated in an evaporating-basin until the mass softens. It is then well worked and transferred to a slab sprinkled with sugar, flavouring ingredients added, and the whole kneaded until uniform. Finally, roll out into thin sheets, and while still warm cut into flat sticks, using a little powdered sugar to prevent the mass sticking to the slab.

The flavourings are essential oils, used in the proportion of 1 to 2 dr. per lb. of finished gum. The flavours employed are peppermint, wintergreen, cassia, sassafras, almond, cloves, vanilla, and orris. *Pepsin gum* is made by adding $\frac{1}{2}$ oz. of pepsin to each pound of basis; *Kola gum* by the addition of 1 oz. of powdered roasted kola-nut; and *Black gum* by using the same quantity of extract of liquorice. *Chocolate gum* contains powdered chocolate, and is flavoured with vanilla. Endeavours are often made to cheapen the production by introducing other ingredients, among which is paraffin-wax—a not altogether desirable substance owing to its complete indigestibility. The same objection does not apply to spruce gum, which in the variety known as *Spruce chewing-gum* is employed in an equal proportion to the chicle gum.

Aq. Lavand. (105/17).—You leave us quite in the dark as to the formula you employ for your lavender-water, so that we are not able to judge where the fault rests.

J. M. (124/36).—(1) GELATIN COPYING-PAD.—This is made by soaking overnight gelatin 1 lb. in water 32 oz., and heating on a water-bath to dissolve. When solution has taken place add glycerin 2 lb., stir gently, and strain into shallow trays to set. It is an advantage to add some powdered chalk to make the pad opaque, as it is then much easier to see the reversed writing. In this case the chalk is made into a cream with the glycerin before it is added to the gelatin solution. (2) The embrocation would probably be best restored by using soft soap as an emulsifying agent. You should experiment with a small proportion of the batch.

J. G. (Trieste) (122/51).—The mosquito-tincture (formalin, xylo, etc.) given in the *C. & D.*, June 24, index folio 928, requires to be shaken before use.

W. R. (125/23).—BOOK ON DOMESTIC MEDICINE.—Thomson and Steele's "Dictionary of Domestic Medicine and Household Surgery" (C. Griffin, 7s. 6d.) can be recommended. A new edition has been published this year.

Eddie (121/17).—HARVEST-BUMPS.—These are caused by an insect of the division *Acaridae*, class *Arachnida*. To prevent them, one method is to soak the stockings with weak carbolic solution and employ carbolic or coal-tar soap for washing with. Flowers of sulphur is recommended by some authorities—a little is dusted on the skin before dressing. For relieving the irritation caused by the bites nothing is better than a dilute lead lotion with or without a little spirit.

F. C. (124/47).—Culpeper's translation of the "London Pharmacopœia" was first published in 1649, and the early editions in the best state are valued by collectors. The price which your book will fetch depends upon the state of the volume and the keenness of the buyer.

T. S. (124/32).—There is no book published on flavourings and soluble essences for aerated-water manufacturers. The best treatise on the subject is the chapter in "Pharmaceutical Formulas" which is devoted to aerated waters.

C. E. H. (123/60).—BOOKS ON DENTISTRY.—See *C. & D.*, September 17, 1910, index folio 460; also read the article on extracting and filling teeth which was published in *The Chemists' and Druggists' Diary*, 1910, p. 455.

S. H. E. (129/60).—MIDGE-LOTION.—The formula you send would be improved by the addition of a little formalin on the lines of the recipe given for a mosquito-lotion in the *C. & D.*, June 24, index folio 928.

Potts (128/37).—LIQUID METAL-POLISH.—See *C. & D.*, January 14, index folio 66, or August 6, 1910, index folio 246. It is too soon to repeat these formulæ.

B. & Co. (125/55).—DISPENSING FOR DOCTOR.—If this is done at the medical man's surgery the charge will have to be worked out at per hour. At 2s. 6d. per hour this would probably pay you, especially if you are also to supply the drugs.

T. E. (128/2).—The formula you send will be published in *The Chemists' and Druggists' Diary* which will appear at the end of the year.

Bag Blue (107/36).—LAUNDRY-BLUE.—As noted in the *C. & D.*, July 29, index folio 226, the blocks of blue for packing in bags are moulded by a machine, which costs from 20l. to 80l., according to whether a hand or hydraulic form is employed. These moulded blues are packed as bag-blue by means of a wooden block, which has a circular hole sunk in it somewhat larger than the piece of blue to be packed. The piece of linen is laid over the hole, and the blue placed in position and pressed into the hole. The linen is gathered together over the top and tied to form a bag. In regard to the ingredients employed, these vary in proportion and also in the quality of the ultramarine, according to the selling-price of the finished product. For a good-quality article the following mixture is employed, the ingredients being thoroughly ground together:

Ultramarine	...	30 parts
Sodium bicarbonate	...	20 parts
Glucose	...	6 parts

E. W. F. (New York) (107/67).—WEED-KILLING ON LAWNS.—The difficulty here is that any general application of a chemical to the lawn will probably kill the grass as well as the weeds. It is for this reason that the weeds are attacked individually, by being cut off close to the ground and a few drops of an acid applied to the crowns. The most suitable acids to employ are sulphuric, hydrochloric, or carbolic acid, but you will find other suggestions in the article dealing with the subject which appeared in *The Chemists' and Druggists' Diary*, 1910, p. 217.

J. M. T. (106/39).—MILK-TESTING BOOKS.—Wanklyn's "Milk Analysis" (Kegan Paul, 5s.); Barthel's "Methods used in the Examination of Milk and Dairy Products" (Macmillan, 7s. 6d.); Ross's "Dairy Laboratory Guide" (Kegan Paul, 2s. 6d.); Van Slyke's "Modern Methods of Testing Milk and Milk Products" (Orange Judd Co., New York). See also the article in *The Chemists' and Druggists' Diary*, 1908, p. 212.

B. F. (115/38).—In the case of the heifer which has resisted the efforts to get her in calf, find out the cause of the deficiency and rectify if possible. If due to weakness or general debility, treat by giving generous and strong food, fresh air, clean and healthy surroundings, and, if practicable, keep in close and safe proximity to the bull. Aphrodisiac draughts are unnatural, and often fail to produce the desired effect.

P. C. C. (121/47).—SHAMPOO-POWDER.—You had better increase the quantity of the soap-powder in your formula, as this course will be less injurious to the hair than by adding more alkali.

Retrospect of Fifty Years Ago.

Reprinted from "The Chemist and Druggist," August 15, 1861.

The British Pharmacopœia.

From the report of the Secretary of the Pharmacopœia Committee lately read before the General Council of Medical Education, we learn that the three divisions of the Committee have been hard at work since they were last heard of, and that the manuscript of the long looked-for work will very shortly be ready for press. We are told that the labour of compiling the *British Pharmacopœia* has been very great; as every preparation given in the work has been made, often repeatedly, and each process practically examined.

